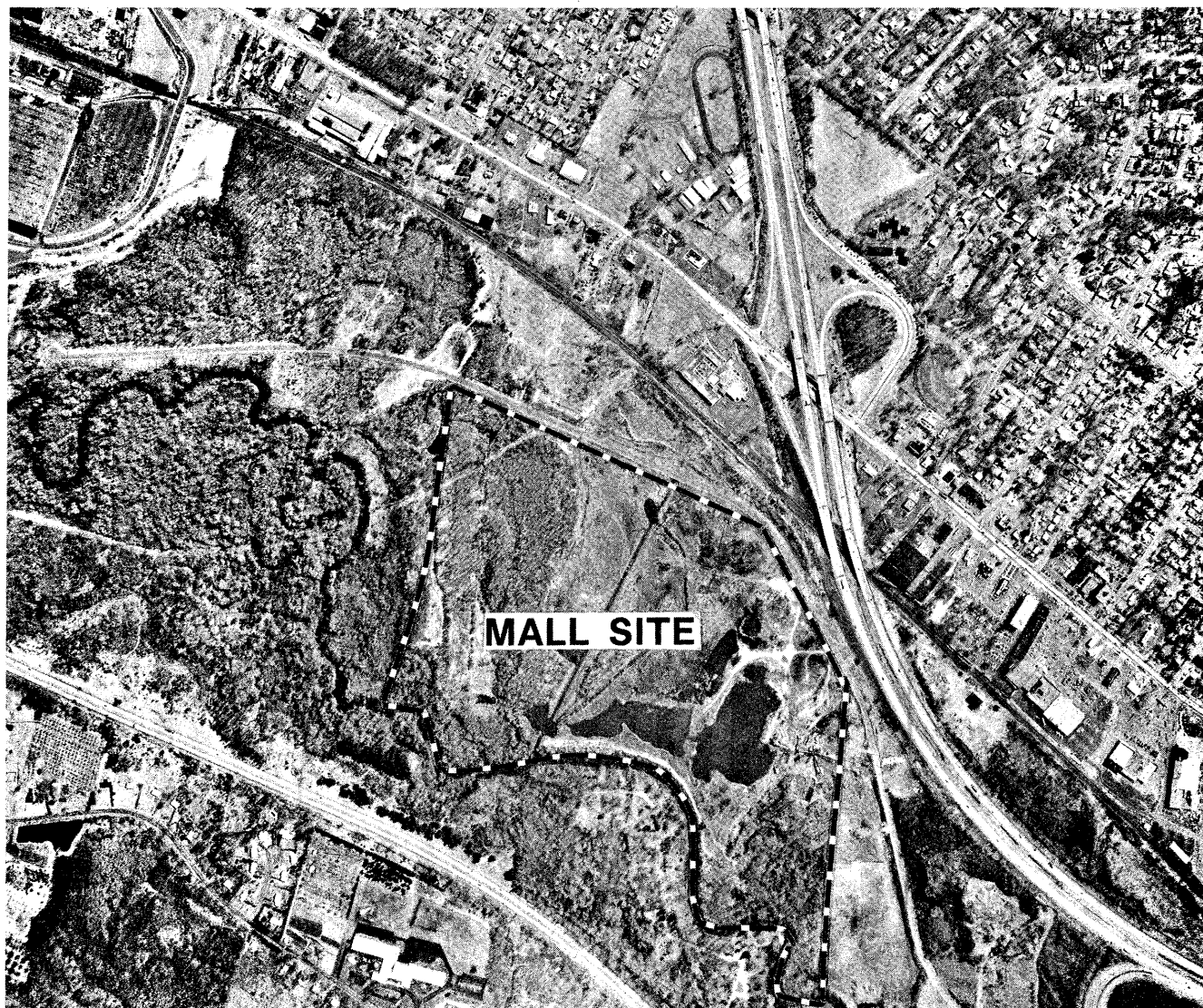

FINAL ENVIRONMENTAL IMPACT STATEMENT

REVISED APPENDIX L, ECONOMICS AND LAND USE

Volume 5

NORTH HAVEN MALL

NORTH HAVEN, CONNECTICUT



JUNE 1983



**US Army Corps
of Engineers**

New England Division

Revised Appendix L
Economics and Land Use

ECONOMICS AND LAND USE

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INTRODUCTION

This report discusses potential economic and land use impacts associated with the proposed regional shopping center known as the North Haven Mall, in North Haven, Connecticut.

Principal issues discussed here include: retail supply/demand impacts on the region's economic base as well as on existing retail activity in the region; associated fiscal impacts on both the Town of North Haven and the region in general; employment impacts generated by construction as well as operation of the proposed mall; and spin-off development impacts related to the mall.

Section I, Summary Highlights, provides a brief discussion of all salient findings and conclusions. A full impact discussion is contained in Section II, Economic and Land Use Impacts, while statistical and methodological detail is provided in the attachments of Section III.

This report was originally issued in August, 1981 as an appendix to the Draft Environmental Impact Statement (DEIS), North Haven Mall issued by the U.S. Army Corps of Engineers in February, 1982.

At the time this report was initially issued, data from the 1980 U.S. Census were not available. Since then, decennial census data have become available and this current volume incorporates reported 1980 population and income data, updated population and income estimates for 1977 (as the base year) and projections for 1985 and 1990. Utilizing the same approach approved by the U.S. Department of Housing and Urban Development, as set forth in Appendix L of the DEIS, this report also employs the specific methodology for projecting impacts in metropolitan New Haven as suggested by that agency.

In addition, general reformatting and editing has been undertaken to provide further clarity and amplification (principally in the Fiscal Impact section) in response to comments received during the DEIS review process.

I. SUMMARY HIGHLIGHTS

I. SUMMARY HIGHLIGHTS

Principal findings of this economic and land use impact analysis, detailed in subsequent sections of this report, are briefly highlighted here.

Project Description: The proposed North Haven Mall will be located in the northern tier of the New Haven SMSA.^{1/} It will contain four major department stores and a variety of other specialty and convenience retail establishments amounting to a total of about 1.1 million square feet. An estimated 817,000 square feet of that complement will be devoted to stores featuring shoppers goods. (Shoppers goods include general merchandise, apparel, furniture and miscellaneous shoppers goods. See Glossary for further detail.)

The Mall's opening is projected for 1984 when approximately two-thirds of the programmed space would be occupied. Full operations and leasing are expected by the end of 1986.

In common with major projects of this type, retail productivity for the center (measured in sales per square feet) will likely achieve industry norms 3-5 years after opening or, in this case, by the end of the decade. While some shoppers goods stores will likely exceed these standards, others will be subject to a more attenuated market acceptance so that, on average, the center's sales productivity will increase gradually during the first 3-5 years after opening.

^{1/} The New Haven-West Haven SMSA (Standard Metropolitan Statistical Area) includes New Haven, North Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, Orange, Wallingford, Woodbridge and Clinton. See map on page 4.

Retail Impacts

Public Need: Development of the North Haven Mall will meet a public need presently unserved by current retailing within the metropolitan New Haven area. The mall will provide a level of retail services that has been deficient for a considerable time. The proposed mall will also provide a depth and variety of merchandise not presently available and an increased level of merchant competition which will sharpen and improve retail services to area shoppers.

The Mall will introduce one new department store entry to this marketplace (G. Fox & Company), one expanded department store which has been present but operating in a nominal and standby facility (J.C. Penney), and one store that has long been associated with metropolitan New Haven and seeks to improve its market coverage and penetration (Sears Roebuck & Company). Interest has already been expressed in the fourth anchor. Macy's, which is in a situation comparable to Sears, has retained an interest in the Mall as has Sage-Allen, a Connecticut based retailing organization not now located in metropolitan New Haven. These anchor establishments, coupled with the diversity of specialized stores featured in the Mall, will fill a current void in the metropolitan area retailing base. They will also provide a higher level of service to consumers immediately outside the metropolitan area.

The public need for such a regional shopping mall is highlighted by the New Haven metropolitan area's estimated annual loss as of 1977 of approximately \$72 million in expenditures to non-metropolitan retail facilities. This leakage of sales is projected to increase in the ensuing decade absent the provision of any new large retail facilities within the metropolitan area. By virtue of its size and location proximate to the growing suburban ring of metropolitan communities, the proposed North Haven Mall would reverse that projected leakage of sales and also

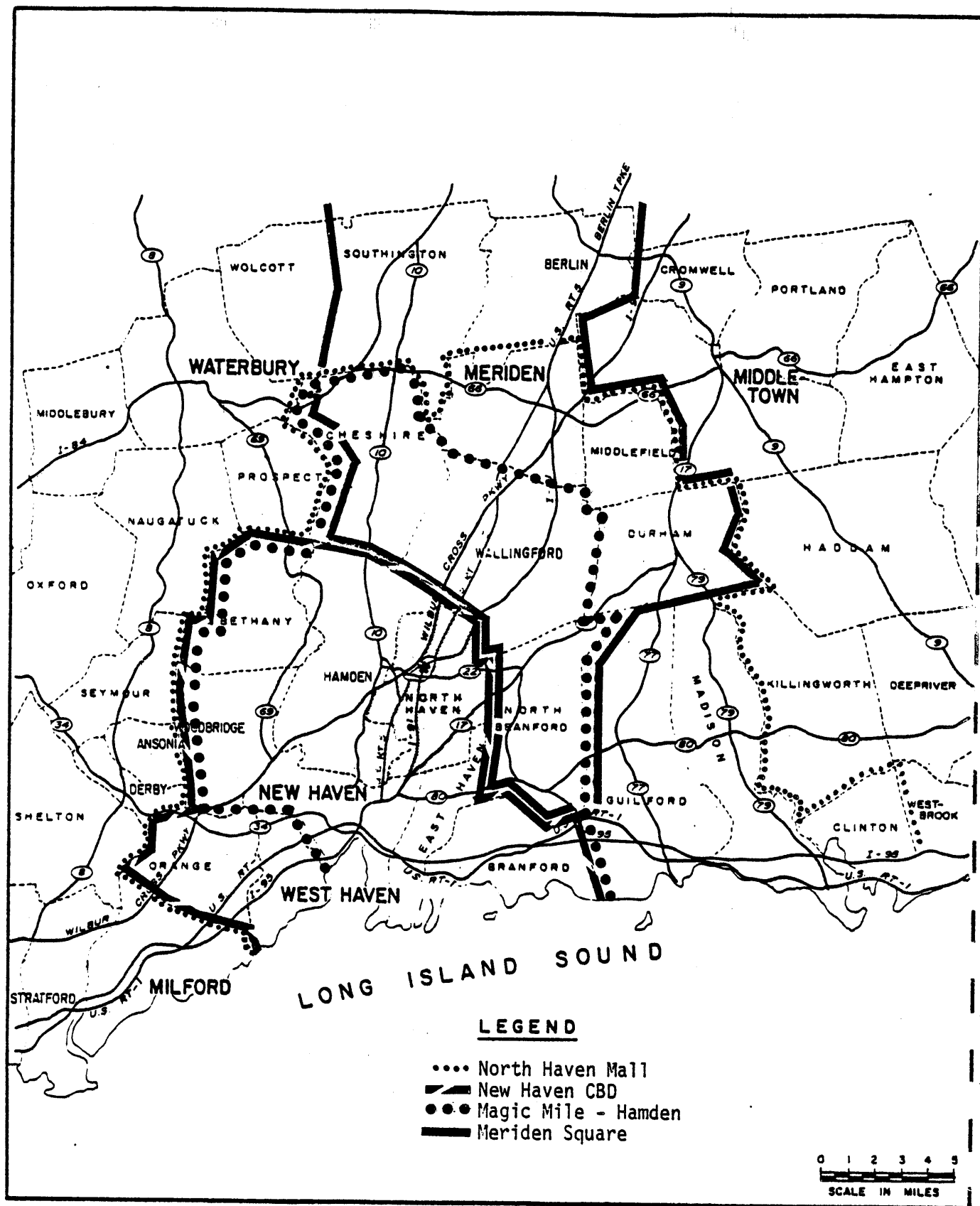
enhance sales flows into the metropolitan area from nearby, non-metropolitan communities.

Retail Evaluation Approach: This assessment of prospective Mall impacts within the metropolitan area, in accord with accepted retail methodology, has taken account of:

- a delineation of relevant trade areas for major retail concentrations;
- an examination of retail sales trends;
- projected shoppers goods volumes for the metropolitan area under two conditions (covering the inclusion and exclusion of a North Haven Mall);
- a forecast 1985 and 1990 sales baseline for two of the metropolitan area's principal centers (namely, Hamden's Magic Mile and downtown New Haven); and,
- a specific assessment of prospective impacts on those two centers as well as other metropolitan area retail locations assuming development of the North Haven Mall.

Trade Areas: The respective trade area penetrations for the proposed North Haven Mall, New Haven's Central Business District and Hamden's Magic Mile are substantially different as a result of several factors, including: changing retailing patterns within the metropolitan area; store representation; and market penetration of primary sectors within these trade areas.

With respect to changing retailing patterns, downtown New Haven has increasingly lost ground to other metropolitan area retailing nodes. As reflected in sales trends (detailed further below) and recent shoppers surveys, downtown's primary trade area has become increasingly constricted, focusing in large measure on the city itself with some extensions into close-in areas of nearby suburban towns. Hamden, by contrast, has succeeded in serving a substantial portion of the metropolitan area's northern suburban tier and has also gained considerable penetration into downtown New Haven's primary trade area.



North Haven Mall
Valley Service Road
North Haven, Connecticut

TRADE AREAS OF SELECTED
RETAIL CENTERS
- 5 -



In terms of store representation and market penetration, the constriction of downtown New Haven's primary trade area, in common with cities throughout the United States, has occurred in relation to changes within so-called downtown department store "flagship" units. The increase of department store branches in this trade area (as in others across the nation), has diminished the "magnet" attraction of downtown stores making them "co-equal" with many others rather than "primary" or "flagship" units.

Hamden's Magic Mile, by contrast, has consisted largely of discount department stores whose appeal (given a concentration of such outlets) is more limited than would be the case with full-line department stores with complementary shops. In this instance, Hamden has served (and will continue to serve) an important segment of the marketplace through the presence of these discount stores.

By virtue of its location near the metropolitan area's growing suburban fringe, the North Haven Mall fits the evolving department store strategy for locating branches throughout the metropolitan area to better access the growth in suburban purchasing power (currently underserved by the present supply of metropolitan area retail facilities). This location, coupled with the mall's depth and selection of merchandise, is expected to achieve strong market penetration in the suburban tier of the metropolitan area, thereby stemming the substantial outflow of sales and enhancing sales inflows from nearby non-metropolitan communities.

Retail Sales and Supply Trends: Shoppers goods volumes (measured in constant 1977 dollars) remained virtually level for the metropolitan area between 1972 and 1977 (moving from \$376.8 million to \$374.8 million; an average annual decline of 0.1 percent). This relatively flat performance, however, masked substantial differences between key centers within the metropolitan area.

Downtown New Haven shoppers goods sales, for example, were off an average 3.1 percent per year (\$99.4 million in 1972 versus \$83.9 million in 1977). Hamden's Magic Mile paralleled the metropolitan average (off 0.1 percent from \$55.5 million to \$55.2 million) while the balance of metropolitan retail centers -- many of them located in suburban communities -- picked up the slack from downtown New Haven with an average annual increase of 1.2 percent (\$222.4 million to \$235.7 million).

Supply Changes: During this period the metropolitan area floor space inventory remained relatively constant. More specifically, about half of the 400,000 square feet of new space that came on line during the latter portion of the 1970's was devoted to shoppers goods. This was primarily in the form of discount department stores which anchored community shopping centers.

Department Store Strategy: Despite the relatively constant sales performance reflected by past trends, metropolitan New Haven has been closely examined by major department stores with respect to corporate locational strategies for the 1980's. These plans view the metropolitan area as a "two store" market. Stated in other terms, the level of anticipated shoppers goods expenditures coupled with the geographic structure of the area are viewed as capable of supporting two stores, properly located, for these retailing organizations. Accordingly, the proposed North Haven Mall represents an important and long planned strategic move for each of the stores programmed to locate in that center.

Metropolitan Shoppers Goods Sales Outlook: Sales levels for the metropolitan area throughout the 1980's has been forecast in relation to:

- the outlook for consumer expenditures;
- sales flows in and out of the metropolitan area;
and
- two basic conditions reflecting a baseline or "current supply" with respect to metropolitan shoppers goods space and another envisioning a supply addition in the form of the proposed North Haven Mall.

Key aspects of these component elements of metropolitan area shoppers goods projections are detailed in this report. Of primary importance in this analysis, however, has been the nature of shoppers goods sales flows in and out of the metropolitan area. Shoppers goods sales flows consist of four principal elements:

- Sales Outflows: representing consumer expenditures on the part of metropolitan area residents which are being spent at locations outside the metropolitan area;
- Untapped Inflow Potentials: standing for consumer expenditures of individuals outside the metropolitan area which are spent at locations also outside of the metropolitan area;
- Sales Inflows: accounting for consumer expenditures on the part of non-metropolitan area residents which are registered as sales by metropolitan area establishments; and
- Sales Retention: representing consumer expenditures on the part of metropolitan residents which are reported as sales by metropolitan area establishments.

These critical components were measured through analyses that traced sales and expenditure levels by individual municipalities and major retail centers. Detailed expenditure-sales comparisons were then established in a matrix form of 380 data cells (i.e., 19 expenditure origins or resident locations and 20 sales destinations or store location-al points). This evaluation, which utilized shoppers surveys and Connecticut Department of Transportation data, revealed that in 1977 the

shoppers goods sales inflows of \$92 million was substantially offset by sales outflows of \$72 million.

A key issue in relation to future metropolitan New Haven retailing pertains to possibilities for both reversing current sales outflows and maintaining or increasing sales inflows from non-metropolitan area residents.

With this background, shoppers goods sales have been forecast for the metropolitan area throughout the 1980's.

Under a baseline condition, which assumes that the inventory of shoppers goods floor space will remain constant, metropolitan shoppers goods sales by 1990 would range between \$366 million (under a most conservative "no growth" in per capita real income) to \$416 million (were a likely "one percent per annum" real growth in per capita personal income utilized). Sales outflows would increase to \$76 million under a "no income growth" scenario and to \$87 million under a "one percent income growth" assumption.

Correspondingly, metropolitan sales have also been forecast under a second, incremental supply condition, in which substantial additions of retail space would be anticipated in the form of the proposed North Haven Mall. This condition would result in both greater sales retention on the part of metropolitan area consumer expenditures and increased sales inflows from market penetration into communities outside the metropolitan area.

With the North Haven Mall, metropolitan area shoppers goods sales are expected to range from \$427 million (under zero percent growth in real personal income) to \$486 million (under one percent real growth) by 1990 -- a 17 percent gain in metro sales over the baseline supply condition under either assumption.

Prospective Impacts: The baseline and incremental supply sales forecasts described above have been utilized to ascertain prospective impacts of the mall upon existing major retail nodes in the metropolitan area. Similar to the approach taken for the metro as a whole, baseline sales expectations for downtown New Haven, Hamden's Magic Mile and the balance of the metropolitan area have been projected to 1990, on the basis of historical capture rates, retail trends, examination of changing trade area characteristics and related factors.

Estimated 1990 shoppers goods sales under the baseline condition for these areas (measured once again in constant 1977 dollars) are as follows:

New Haven CBD	\$69.6 million
Hamden's Magic Mile	\$55.2 million
Balance of Metropolitan Area	\$291.3 million.

These forecasts are predicated on a most likely income growth, in real terms, of one percent per annum. (Under a zero percent income total metro sales would be approximately 14 percent lower. See Section III(D)(4) for detail.)

Shoppers goods sales at the North Haven Mall are projected at \$85 million, in constant terms, for 1990. These prospective sales volumes for the Mall have been analyzed and forecast by the following principal components:

- Sales Leakage Recapture with respect to metropolitan area expenditures currently flowing to retail establishments outside the metropolitan area but which would be retained by the mall;
- Improved Sales Inflow with respect to consumer expenditures from non-metropolitan area communities flowing into the metropolitan area which would otherwise go to non-metro establishments; and,
- Transfer Sales covering sales diverted from existing metropolitan centers.

Under the "worst case" -- i.e., no real per capita personal income growth and the highest transfers projected in this analysis -- sales diverted from other metropolitan locations as a result of the proposed North Haven Mall might amount to \$24 million annually by 1990. These would represent a "transfer" of 6.5 percent from the previously forecast metropolitan area baseline.

Under the more likely one percent income growth scenario, transfer sales in 1990 would amount to \$15 million, or about 3.7 percent against total metropolitan area baseline sales.

Such sales transfer impacts would likely be differentiated among metropolitan area retail centers. Downtown New Haven, for example, would have to rely increasingly on a more constricted primary trade area to account for shoppers goods sales. Hamden, by contrast, would continue to share sales within the suburban tier as well as tapping other communities on the periphery in much the same fashion as that anticipated for the proposed North Haven Mall.

Accordingly, it is estimated that the North Haven Mall would have a limited impact on Magic Mile's shoppers goods sales -- estimated to be off approximately 9.2 percent (\$5.1 million) in 1990 under the "worst case" scenario of no real per capita personal income growth, and \$3.3 million or 5.9 percent assuming a one percent annual income growth.

Downtown New Haven's shoppers goods sales, correspondingly, would be affected by a decline of 9.2 percent from its projected baseline sales in 1990 representing a transfer volume of \$6.4 million. Assuming the more plausible annual income growth of one percent, the impact would shift to \$4.1 million or 5.9 percent.

Other metropolitan locations, as a result of the effects noted for both downtown and New Haven Magic Mile, would be off about 5.1 percent (\$12.3 million) from their baseline forecasts in 1990 under the

conservative forecast of zero personal income growth noted above. With income growth at one percent, impacts here are projected at \$7.9 million or 2.7 percent.

For the Town of North Haven itself, some initial transfers from existing retail establishments may take place but would, of course, be dramatically offset by the addition of the mall's sales. These initial sales impacts may be on the order of ten to twenty-one percent, in 1990, against a town-wide shoppers goods sales base of \$20 to \$26 million

On the other hand, it is anticipated that most retail establishments in the town -- especially along Washington Avenue -- will benefit from the increased consumer traffic generated by the mall and, in any event, the mall will increase the town's shoppers goods sales (net of transfers) by some \$81-\$82 million on top of the \$20 to \$26 million baseline projection.

Mitigating Measures: Several steps can be taken to mitigate the effects of limited shoppers goods sales declines in metropolitan area retail nodes as a result of the proposed North Haven Mall. Among these are:

- Continued and increased attention to overall planning within affected communities in providing a supportive retailing environment, especially with respect to key factors of access, parking and other amenities demanded by contemporary shoppers.
- Improved merchandising appeal to shoppers within primary trade areas. In the case of downtown New Haven, for example, the increasingly constricted primary trade area for that center relies on the City itself. Accordingly, downtown merchants must be more acute in discerning and serving the needs of that population.

- Effective action with respect to the changing roles for downtown areas and other business districts in relation to office, institutional, and residential developments. In the case of downtown New Haven, for example, this would involve deepening the already established office markets that have been tapped in the past, increasing the area's attractiveness as an entertainment center, improving the housing inventory for downtown workers and others with a central place orientation and enhancing retail opportunities in relation to these "captive" market segments (workers, residents and other users of the area).

As a result of all of these steps, the competitive position of these existing retail nodes can be strengthened and the limited prospective sales impacts forecast here mitigated.

Fiscal Impacts

Local: The Town of North Haven will receive significant fiscal benefits from construction and operation of the North Haven Mall. The proposed Mall will produce local property tax revenues substantially in excess of town costs associated with services required by the Mall.

It is estimated that this "surplus" would be more than \$1 million annually and -- assuming a continuance of today's service levels -- would have the effect of reducing the property tax rate by five percent town-wide.

Region: From a regional perspective, potential fiscal impacts have been assessed here in relation to retail sales transfer impacts within the New Haven-West Haven metropolitan area.

The retail sales diversions to the North Haven Mall may have limited impact on the fiscal situation of other cities and towns in the metro. Fiscal impacts have been analyzed assuming a direct reduction of property values and associated tax revenues resulting from retail sales diversions within the metropolitan area -- a highly conservative assumption. It

is unlikely that, on an individual basis, sales reductions associated with the North Haven Mall will be at such a level as to induce a proportionate reduction or subsequent elimination of such space from municipal tax rolls. Therefore, any regional fiscal impacts associated with the operation of the North Haven Mall are judged to be nominal.

Even assuming a direct, proportionate decrease in a community's property tax base, the average reduction would be approximately two-tenths of one percent of a given municipality's total property tax revenues. On a net regional basis, however, property tax revenues would increase between at least \$600,000 and \$900,000 annually.

Employment Impacts

The construction and operation of the North Haven Mall will create a substantial number of employment opportunities for the residents of the New Haven-West Haven SMSA.

Construction: Construction of the Mall will require nearly 11,000 person-months of labor and will generate on the order of \$21.8 million in wages. These labor requirements will vary over the projected 36 month construction period and are expected to peak from months 13 to 25, as well as in the last 7 months of construction.

It is estimated that on the order of 45 percent of the construction phase labor requirements would be filled by workers from the New Haven Labor Market Area. Information from the Connecticut Department of Labor indicates that the construction worker pool in the New Haven Labor Market Area is sufficient to fill these projected requirements. As such, these positions will represent an infusion of about \$9.8 million in new wages into the New Haven metropolitan area.

Operations: The operations phase of the Mall will generate nearly 2,000 permanent jobs (1600 full time equivalent jobs). Approximately 450 of these positions represent potential personnel transfers from existing metropolitan retail establishments. Net new positions associated with the operations of the North Haven Mall are therefore projected at 1,150 full time equivalent jobs in 1990. Between 1,200 and 1,300 of the total 2,000 (full time and part time) positions are expected to be filled by residents of the New Haven metropolitan area -- an increase of about 3 percent over existing employment in the wholesale and retail trade sector, and an increase in total regional employment of between 0.6 percent and 0.7 percent. Wages generated by these net new positions would be on the order of \$8.2 million to \$9.5 million (in today's dollars) and would increase the total wages paid out in the New Haven Labor Market Area by about 0.4 percent.

The injection of construction-related and mall operations wages into the metropolitan economy will generate additional economic activity as a result of a "multiplier effect." The construction phase of the mall will have a one-time impact of \$24.5 million in economic activity, beyond the direct wages paid out. The operations of the Mall, however, will result in a longer term economic benefit of between \$20 million and \$24 million annually. This translates into a potential secondary impact of an additional 760 to 790 jobs in the SMSA.

Land Use Impacts

Development of the North Haven Mall may carry with it the potential for altering land use patterns in the immediate area. Through secondary development, or induced growth, the North Haven Mall will generate increas-

ed shopping activities along Washington Avenue, Valley Service Road and Mall Drive. Its size will reinforce the area as a commercial corridor and improve its competitive position. As such, within the physical constraints of development sites, it is projected that ancillary retail development is likely to take place along Valley Service Road and on in-fill sites along Washington Avenue. Also, opportunities for development of small-scale office development will be enhanced along Valley Service Road.

Anticipated development along Valley Service Road would not exceed 60 acres of land, and would be subject to conventional land use controls. It is reasonable to expect that about 40 percent of the available land might be developed within the first ten years following the mall opening, with the remaining land being developed within the second ten-year period.

Cumulative Impacts

The impact analyses carried out here have been undertaken in a comparative fashion -- that is, prospective metropolitan retail market conditions were evaluated with and without the increased retail space supply represented by the North Haven Mall.

The only other reasonably foreseeable proposal noted in the course of the EIS preparation for retail supply additions affecting the metro is a modest (20,000 square feet) increase in the retail floor area of the existing Connecticut Post Shopping Center in Milford, as well as

II. ECONOMIC AND LAND USE IMPACTS

A. Retail Impacts

A. RETAIL IMPACTS

Potential retail impacts associated with the proposed North Haven Mall are discussed here. For ease of review, the materials are organized as follows:

1. The Public Need
2. General Approach
3. Impact Evaluation

1. Summary Findings

Development of the North Haven Mall will meet a public need presently unserved by current retailing within the metropolitan New Haven^{1/} area.

Through the addition of approximately 817,000 square feet of shoppers goods space (out of a proposed project total of 1.1 million square feet of gross leasable area), existing commercial deficiencies within the area will be overcome, producing major benefits for local shoppers. First, through the introduction of new and expanding department and specialty stores, the depth and variety of retail merchandise within the metro will be broadened. Also, the increased level of merchant competition will sharpen and improve the nature of retail service to area shoppers.

Additionally, through the expansion of the retail supply, projected metropolitan area shoppers goods sales will increase by approximately 17 percent with the development of the mall.

^{1/} The terms "metropolitan New Haven," "New Haven metro," "the metropolitan area" are used synonymously with the New Haven-West Haven Standard Metropolitan Statistical Area (SMSA) as defined by the U.S. Bureau of the Census.

Sales at the North Haven Mall will be generated by recapturing sales currently flowing to non-SMSA locations, increased sales inflows and transfer sales from existing SMSA locations (detailed more fully in the sections following). With regard to transfer sales, the impacts on the New Haven CBD and Hamden's Magic Mile have been specifically analyzed.

The impacts projected for these two centers are limited. In 1990, shoppers goods sales in New Haven and Hamden would be off approximately 5.9 percent each from their baseline levels under the one percent income growth scenario.

Associated impacts on other major retail centers and towns within the metropolitan area have been examined as part of this work and have been found to be limited.

More specifically, these principal conclusions may be summarized as follows:

Public Need: The North Haven Mall will provide a level of retail services that has been deficient in metropolitan New Haven for a considerable time.

The public need here would be served through a depth and variety of merchandise not presently available and through an increased level of merchant competition which will sharpen and improve the nature of retail service to area shoppers.

Public need would also encompass such factors as the convenience to consumers of one-stop shopping in a climate-controlled environment, safety and security, ease of ingress and egress, and ample parking. In essence, the modern mall is designed for and caters specifically to shoppers and affords the opportunity for valuable savings of time and energy as well as offering a range and variety of merchandise which

enable comparison shopping in a single location. In light of these characteristics, it is not surprising that malls have assumed enhanced popularity as the number of working households grows, and leisure time becomes increasingly valuable.

Of key significance, the mall will introduce one new department store entry to this marketplace (G. Fox & Company), one expanded department store which has been present, but operating in a nominal and standby facility (J.C. Penney), and at least one other store that has been long associated with metropolitan New Haven and seeks to improve its marketing coverage and penetration (Sears). Macy's, which also has been present in New Haven, continues to have an interest in this center as does Sage-Allen, which is seeking to serve this market.

These anchor establishments, coupled with the variety and depth of specialized stores featured within the mall, will fill a current void within the metropolitan's present retailing base.

Additionally, the presence of this regional shopping center will obviate the need for metropolitan shoppers to travel to other more distant points to satisfy their retail requirements and will provide a higher level of service to consumers immediately outside the metropolitan area.

New Haven CBD and Hamden's Magic Mile Impacts: Anticipated effects in relation to these two major retailing concentrations have been assessed in the context of "baseline" forecasts which take full account of past trends and probable sales levels under varying income growth scenarios. The impacts projected for New Haven and Hamden have been found to be limited.

By 1990, under a worst case zero percent income growth assumption, shoppers goods sales in New Haven and Hamden would be off approximately 9.2 percent each (\$6.4 million in the CBD and \$5.1 million at Magic

Mile). With prospective income growth at one percent, these impacts would reduce to 5.9 percent for each center.

Accordingly, we conclude that the public need served by the prospective North Haven Mall would outweigh any adverse economic or retail effects it might have elsewhere within metropolitan New Haven and, therefore, represents an important contribution to the area's retail base.

It should also be noted that projected total metropolitan area shoppers goods sales by 1990 will grow by approximately 17 percent with development of the Mall.

2. The Public Need

The principal public need served by the North Haven Mall is the provision of retail service facilities that have been substantially unavailable to metropolitan New Haven residents for many years. The absence of adequate retail facilities has resulted in the diversion of New Haven SMSA purchasing power to sales destinations beyond metropolitan boundaries. Specifically, in 1977 \$72 million of the available \$355 million in metropolitan purchasing power -- 20 percent -- was spent in non-SMSA sales locations. These include Connecticut Post in Milford, Meriden Square in Meriden, Trumbull Shopping Park in Trumbull, West Farm Mall in Hartford, and Naugatuck Valley Mall in Waterbury, as well as other smaller retail centers.

Under a baseline situation, that is, static supply conditions, these sales outflows to non-SMSA sales destinations, or sales leakage, are projected to increase. In 1990, assuming no growth in personal income and the continuation of current shopping patterns, sales outflows

are projected to increase to \$76 million. Should personal income growth exceed these conservative assumptions and increase -- as is likely -- at an annual rate of one percent, sales outflows could amount to \$87 million. (For a more detailed discussion and explanation of 1977, 1985 and 1990 sales flows, see Section II under Metropolitan Shoppers Goods Sales Outlook and Section III(B).)

These problems have been exacerbated by the continued growth and expansion of suburban communities ringing the central urban core. Population gains in these suburban jurisdictions have exceeded those for the metropolitan area as a whole and comparable levels for the State of Connecticut (detailed in Section IV(A), Background Economic Indicators).

The North Haven Mall presents an opportunity for satisfying this long deficient public need.

The principal trade area for the North Haven Mall has been defined to include the SMSA cities/towns of: North Haven, New Haven, Hamden, Wallingford, North Branford, East Haven, Bethany, Woodbridge, Orange, West Haven, Branford, Guilford, Madison and Clinton. In addition, the following non-metropolitan locations are included: Durham, Middlefield, Meriden and Cheshire.

Three major anchor stores have committed to branch locations within this facility. Two others have expressed interest in participating. The complement of these stores brings a range and depth of merchandise selection unavailable to date in a single concentration of activities elsewhere in the region. The presence of these anchor stores, together with other mall shops, will enable New Haven area shoppers to satisfy

their retail purchases within one comprehensive planned facility rather than traveling to many distant points to accomplish the same purpose. (A more detailed discussion of these anchor stores may be found further in this section under the heading, Anchor Stores Current Status and Future Plans.)

Equally as important, the public need can be served within the near term owing to the plans that have been completed and specific commitments that have been obtained with respect to these anchor stores. No other proposal or plan within the metropolitan area can be "on-stream" and provide for the public need here in the near term. This, in effect, means that the presently substantial sales outflows from the SMSA would continue for the foreseeable future absent immediate development of the North Haven Mall.

3. General Approach

This evaluation of prospective North Haven Mall impacts has followed conventional and professionally accepted retail analytic techniques.

These are focused on the metropolitan New Haven area and have traced sales outflows and inflows in relation to the existing retail complement of shoppers goods -- i.e., comparison items as contrasted with convenience commodities^{2/} -- over the next decade.

Paralleling that investigation has been a forecast level of activities for two principal retail concentrations located in downtown New Haven and Hamden's Magic Mile. These forecasts have established the

^{2/} See Glossary for full definition.

"baseline" -- for the total metropolitan as well as specific retail centers -- against which prospective North Haven Mall impacts have been measured.

Specifically taken into account, therefore, as an integral part of these procedures have been the following:

- The Trade Areas for North Haven Mall, Downtown New Haven, Magic Mile and Other Major Retail Centers: a fundamental point of departure in any analytic assessment of prospective sales outlook and possible impacts that might follow from development of the North Haven Mall.
- Retail Sales Trends: changes in which must be evaluated and interpreted prior to undertaking forecasts of future retail volumes.
- Shoppers Goods Sales Metropolitan New Haven, 1985 and 1990: provide a key reference point for characterizing and quantifying public need in the commercial area as relates to consumer expenditures flowing out of the region.

Similarly, these volumes -- projected on the basis of two conditions: covering the inclusion and exclusion of the North Haven Mall -- firmly establish the basis for assessing prospective impacts for and among other metropolitan New Haven retail nodes.

- Prospective Impacts: attributable to the North Haven Mall with respect to downtown New Haven and Hamden, in turn, can be directly assessed in the context of anticipated levels of sales without the Mall (i.e., the "baseline case") and those forecast under the condition of a fully operating North Haven regional center.

This approach, described here in overview and detailed on the pages which follow, has set the basis for the evaluation of prospective retail impacts. Corresponding fiscal, employment and land use impacts associated with Mall development are also noted further below in this report following detailed discussion of prospective retail impacts.

4. Impact Evaluation

Paralleling the methodological approach outlined above, this section assesses prospective impacts on retail concentrations within metropolitan New Haven and covers:

- a delineation of relevant trade areas;
- an examination of retail sales trends;
- projected shoppers goods volumes for the metropolitan area under two conditions covering the inclusion and exclusion of a North Haven Mall;
- a forecast 1985 and 1990 sales baseline for Hamden's Magic Mile and downtown New Haven; and
- a specific assessment of prospective impacts for downtown New Haven and Magic Mile assuming development of the North Haven Mall.

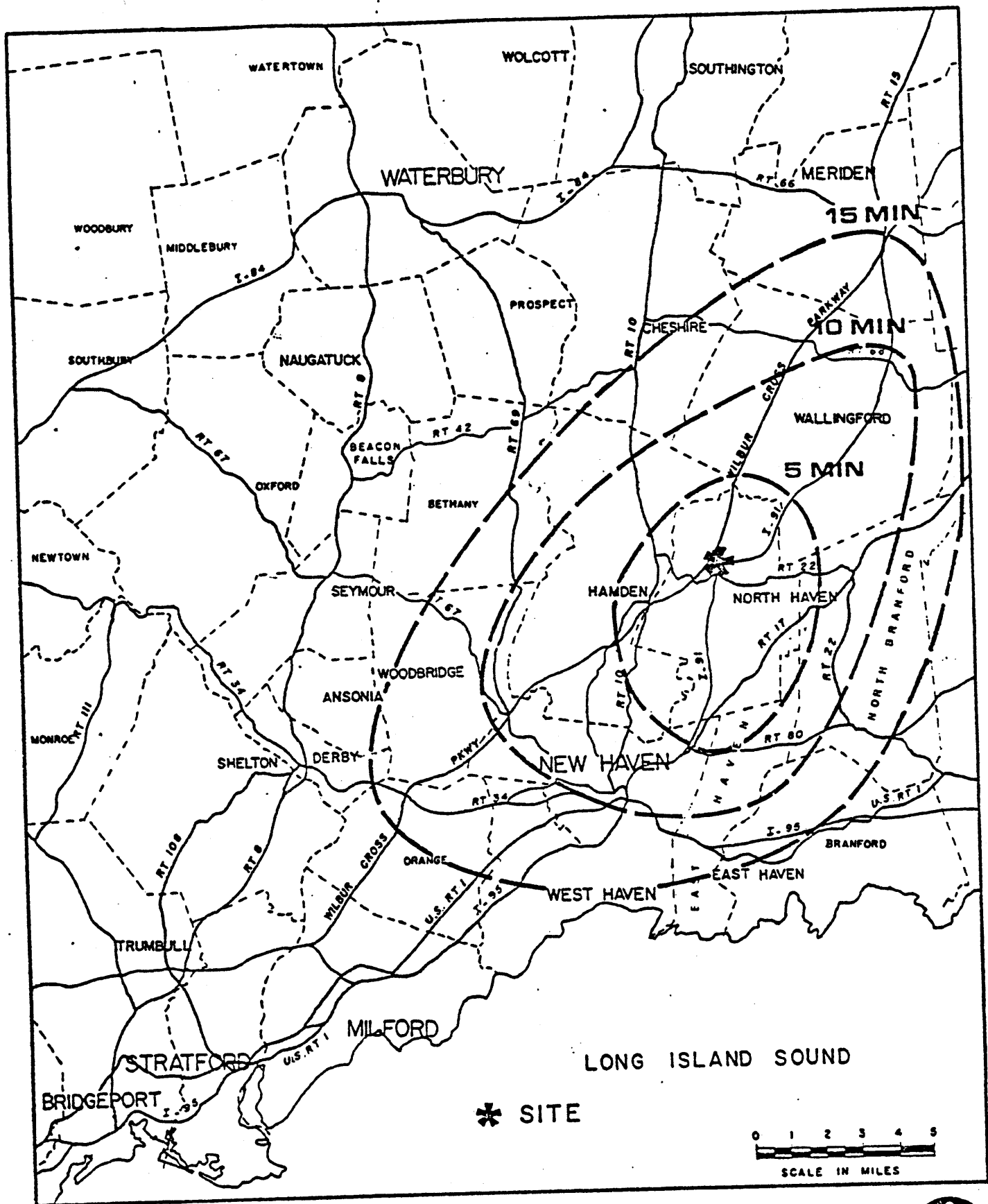
Delineation of Relevant Trade Areas

North Haven Mall Trade Area: The potential trade area for the North Haven Mall, as proposed, was initially defined through standard driving time and competitive center analyses. It was later refined once detailed sales flow analyses, showing discrete retail sales patterns throughout regional subareas, were completed, thus enabling a center-by-center competitive assessment (see Section III(B)(2)).

As such, the North Haven Mall market area has been defined to include the following:

- SMSA: North Haven, New Haven, Hamden, Wallingford, North Branford, East Haven, West Haven, Orange, Bethany, Woodbridge, Branford, Guilford, Madison and Clinton.
- Non SMSA: Durham, Middlefield, Meriden, and Cheshire.

As may be seen further below in this section, the principal retail concentrations currently operating within the metropolitan area consist of downtown New Haven and Hamden's Magic Mile. These two centers each



NORTH HAVEN MALL
VALLEY SERVICE ROAD
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NEW HAVEN SMSA
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registered \$100 million or more in total retail sales for 1977 (the last year for which comprehensive data are available), a level considerably above any other location within the region.

Trade areas for these two retail concentrations have been established through:

- an examination of previous studies undertaken within the area; and
- complementary shoppers surveys carried out in the course of this EIS study.

New Haven/Hamden Trade Areas: New Haven's central business district and Hamden's "Magic Mile" serve trade areas that are clearly different although with some significant overlaps. As noted further below, these trade areas are measurably different from that anticipated for the proposed North Haven Mall although again there are important overlaps.

Primarily on the basis of a prior survey completed in December 1977 for the City of New Haven by Halcyon, Ltd., the market or trade area for the New Haven CBD has been defined as the New Haven-West Haven SMSA or metropolitan area. Approximately 90 percent to 95 percent of the downtown's sales are drawn from this area. The CBD's principal trade area, however, covers ten communities and contributes nearly 90 percent of its sales.

Eighty percent of the shoppers identified in the Halcyon survey were drawn from a "core area" consisting of the city itself and a ring of five additional communities immediately surrounding New Haven. Forty-three percent were from New Haven alone.

Thus, while the total trade area of the CBD appears to cover a large geographic area, its market coverage in the metropolitan area is quite constrained.

Although the trade area for Hamden's Magic Mile is substantially similar to the CBD, Halcyon and Gladstone surveys for Hamden's Magic Mile show a more diffuse distribution of patrons throughout the metropolitan area. Stated in other terms, Magic Mile has a deeper market penetration in outlying suburban areas than does downtown New Haven. Illustratively, "Magic Mile" drew nearly one half of its patrons from cities/towns located outside of downtown New Haven's primary market area.

Thus, this and other suburban centers have already gained appreciable sales penetration into the relatively confined areas representing downtown's "primary trade area" and source of principal patronage. As well, these outlying centers have substantially penetrated the suburban areas which are not being fully served by the New Haven CBD. It is in these suburban areas that population growth has been and is projected to continue to occur. (See Section IV (A), Background Economic Indicators).

On the strength of survey results and close examination of metropolitan retailing patterns, market areas for both downtown and Hamden have been delineated as follows:

DOWNTOWN NEW HAVEN AND MAGIC MILE TRADE AREAS

<u>Trade Area</u>	<u>Downtown New Haven</u>	<u>Magic Mile</u>
<u>Primary</u>	New Haven Hamden North Haven West Haven East Haven Branford	New Haven Hamden North Haven Cheshire Wallingford
<u>Secondary</u>	Woodbridge Orange East Haven Bethany	Bethany North Branford Branford Woodbridge

Note: Definition of primary and secondary trade areas is included in the Glossary.

Other Retail Concentrations: Trade areas have also been identified for a number of other principal retail centers within the region. As a result, it was possible to identify and assess possible overlapping trade areas for various centers. It was also possible, using the detailed sales flows matrix^{1/} (described more fully under Shoppers Goods Sales Flows in this section) to evaluate sales which may be flowing outside of the SMSA.

These include:

- Connecticut Post in Milford;
- Trumbull Shopping Park in Trumbull;
- Naugatuck Valley Shopping Center in Waterbury;
- Meriden Square in Meriden; and
- West Farms in West Hartford/Farmington.

Trade areas for certain of these centers as well as that expected for the North Haven Mall may be seen graphically in the map which follows.

^{1/} This sales matrix details 1977 sales flows from the city/town of origination to 20 SMSA and non-SMSA sales destinations. A complete description and analysis are included in Sections III(B) and (C).

Retail Sales Trends and Current Supply Conditions

As reported by the Census of Retail Trade (and adjusted by Gladstone Associates to account for under-reporting in State Sales Tax -- see Section III(D)(1), Methodology), metropolitan area shoppers goods sales measured in constant 1977 dollars were approximately \$376.8 million in 1972 and \$374.8 million in 1977.

A summary comparison of these changes relative to total retail sales follows:

METROPOLITAN AREA SALES TRENDS

1972-1977

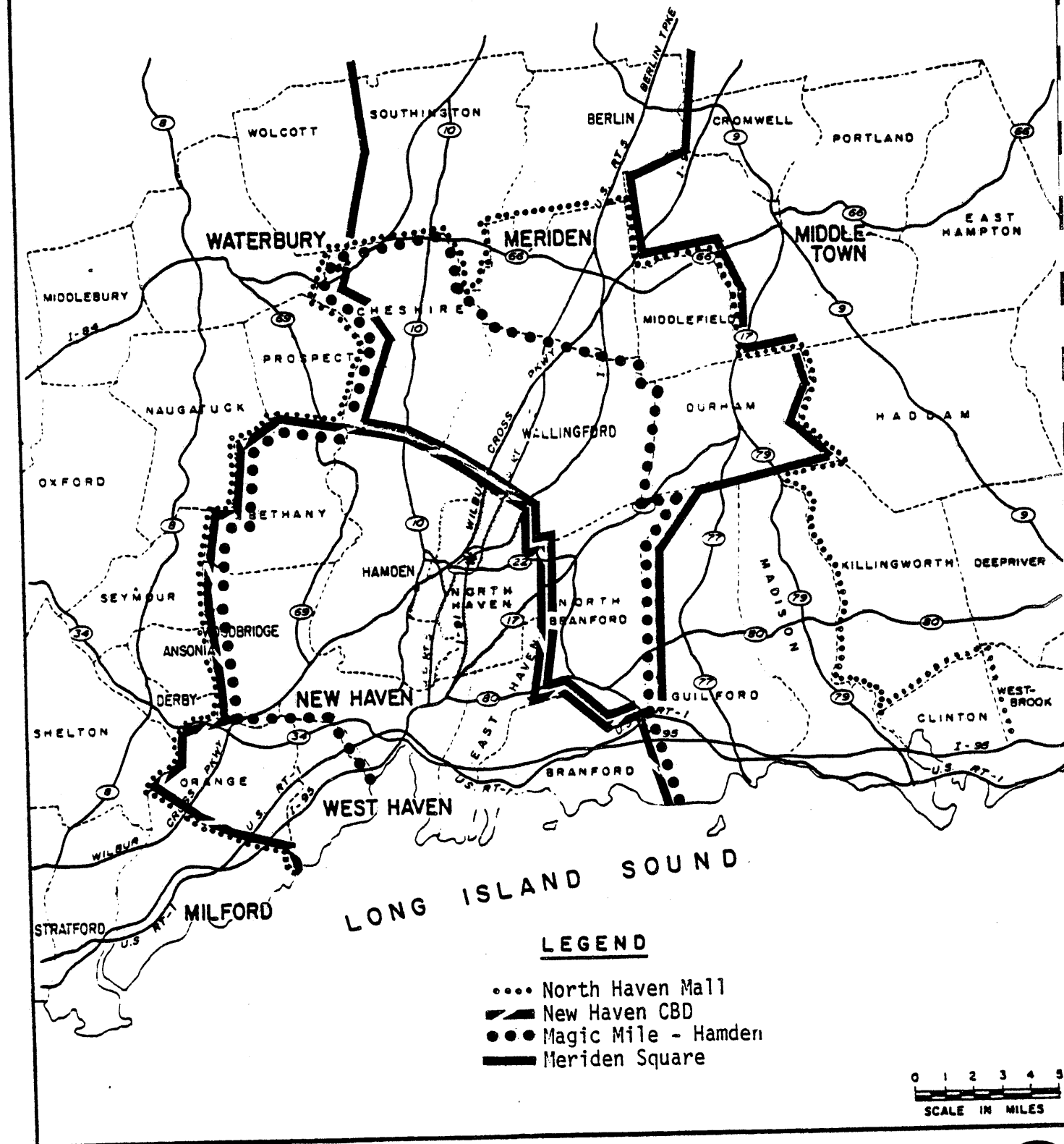
(In Millions of 1977 Constant Dollars)^{1/}

<u>Year</u>	<u>Sales</u>	
	<u>Total</u>	<u>Shoppers Goods</u>
1972	\$1,072.4	\$376.8
1977	\$1,068.0	\$374.8

^{1/} Adjusted by retail price indices as reported by the Bureau of Labor Statistics.

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting. Total sales exclude automotive dealers and service stations.

As examined in greater detail further below in this report, the sales components of metropolitan area retail volumes in 1977 were influenced appreciably by inflows and outflows of consumer expenditures. Specifically, an estimated \$72 million in metropolitan New Haven resident consumer expenditures -- representing approximately 20 percent of the area's purchasing power for shoppers goods -- flowed out of the region to other locations. This substantial "sales leakage" underscores the conclusion that the present scale and character of retail establishments are not sufficient to capture these potential metropolitan area expenditures. (See Section III-(D)(2).)



North Haven Mall
Valley Service Road
North Haven, Connecticut

TRADE AREAS OF SELECTED

RETAIL CENTERS



New Haven Sales Trends: In the course of the same period, downtown New Haven's sales -- measured in constant 1977 dollars -- went from approximately \$121 million in 1972 to \$104 million in 1977; an average annual decline of \$3.4 million (2.9 percent).

The level of overall retail volumes and shoppers goods sales for the central business district is shown in the table directly below.

DOWNTOWN NEW HAVEN RETAIL SALES
1972-1977
(In Millions of 1977 Constant Dollars)^{1/}

<u>Year</u>	<u>Total</u>	<u>Shoppers Goods 2/</u>
1972	\$120.9	\$ 99.4
1977	\$103.9	\$ 83.9

Average Annual Change: 1972-1977

Volume	-\$ 3.4	-\$ 3.1
Percent	-2.8%	-3.1%

^{1/} Adjusted by retail price indices as reported by Bureau of Labor Statistics.

^{2/} 1972 shoppers goods sales reported by Halcyon and Regional Planning Agency memorandum dated March 8, 1979.

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting.

Hamden Trends: Hamden's total retail sales for 1972-77 went from approximately \$106 million to \$103 million -- a yearly decline of \$600,000 or 0.6 percent.

It is important to note that by the end of the 1970's, Hamden's Magic Mile district matched downtown New Haven's sales volumes, bringing it in line with the City's central business district as one of the metropolitan area's principal retail centers.

In the course of these changes, New Haven maintained a major share of shoppers goods sales but continued to lose its relative position with respect to Hamden's Magic Mile -- where shoppers goods volumes remained level in constant terms in the face of downtown's decline.

Sales trends for Hamden are presented in the table which follows.

HAMDEN'S MAGIC MILE RETAIL SALES
1972-1977
(In Millions of 1977 Constant Dollars)^{1/}

<u>Year</u>	<u>Total</u>	<u>Shoppers Goods</u>
1972	\$106.3	\$55.5
1977	\$103.4	\$55.2
Average Annual Change: 1972-1977		
Volume	-\$ 0.58	-\$ 0.07
Percent	-0.6%	-0.1%

^{1/} Adjusted by retail price indices are reported by Bureau of Labor Statistics.

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting.

Other Metropolitan Locations: Overall, realignments in metropolitan area sales for 1972-77 reflected continued erosion in downtown's relative position.

As central business district volumes declined and Magic Mile remained relatively stable, other retail locations within the metropolitan area gained in both total retail sales and those for shoppers goods. These changes reflected a shift in area-wide retailing when viewed against the broader context of state and regional trends.

New Haven declines, for example, were contrary to changes taking place elsewhere. In Connecticut, shoppers goods sales were up approximately 1.1 percent per annum between 1972 and 1977. More widely, southern New England (consisting of Connecticut, Massachusetts and Rhode Island) showed average gains of 0.5 percent per year for the corresponding period.

The relatively level performance for shoppers goods volumes in Hamden generally approximated changes for southern New England. Downtown New Haven, on the other hand, showed reverses in the face of a relatively stable level of shoppers goods volumes for the metropolitan area between 1972 and 1977.

The table below reflects these changes in shoppers goods sales for the respective areas under examination here.

SHOPPERS GOODS SALES
(In Millions of 1977 Constant Dollars)

	<u>1972</u>	<u>1977</u>	<u>Average Annual Change</u>
New Haven CBD	\$ 99.4	\$ 83.9	-3.1%
Hamden's Magic Mile	\$ 55.5	\$ 55.2	-0.1%
Balance of Metro	\$ 222.4	\$ 235.7	1.2%
Metropolitan Area	<u>\$ 376.8</u>	<u>\$ 374.8</u>	-0.1%
State of Connecticut	\$2,607.7	\$2,752.9	1.1%
Southern New England	\$8,162.9	\$8,347.3	0.5%

Recent Supply Changes: Shifts in metropolitan retail sales noted above took place without any significant addition of commercial floor area for the 1972-77 period. Specifically, about 400,000 square feet of new space (of which about one half was devoted to shoppers goods) came on line throughout the latter portion of the 1970's in significantly sized shopping centers.

This floor space was accounted for by the Woolco Plaza in North Haven (135,000 s.f.), the Wallingford Shopping Plaza (135,000 s.f.) and the Peck Lane Plaza in Orange (152,000 s.f.). The Woolco Plaza opened in 1973 and the others in 1974. These centers are primarily convenience in orientation, anchored by food stores and/or discount department stores. The suburban location of these new centers underscores once again that retail establishments have tended to locate in areas in which population growth has or is expected to occur.

While other retail space may have been added in free-standing and neighborhood centers, this nominal increment of retail floor space indicates that the metropolitan area's retail inventory in community and regional shopping centers^{3/} was relatively unchanged for the period.

Current Supply Conditions: Within metropolitan New Haven, there are currently two major retail centers -- downtown New Haven and Magic Mile in Hamden.

In addition, a series of other centers outside of the metropolitan area serve segments of the local population. Illustratively, Connecticut Post Plaza in Milford covers several towns on the southwestern edge of metropolitan New Haven while West Farms and Meriden Square accommodate a number of communities on the northern edge.

^{3/} See Glossary for full definition.

Each of these centers is regional in scope, encompassing from 500,000 to one million plus square feet of retail space and including two or more anchor stores as major tenants.

The majority of the space in these centers is typically occupied by department stores and specialty retail establishments selling shoppers goods merchandise. These retail lines, also termed GAF, include general merchandise, apparel, furniture and miscellaneous shoppers goods. Other types of retailing establishments in these shopping centers include convenience stores (food and drug) as well as restaurants and miscellaneous stores of various types. Personal service establishments, such as banking, hairdressers, optometrists, etc., may also be represented.

The specialty retail stores (within the shoppers goods category) tend to carry more limited retail lines but products that are generally found within standardized department stores. These products are those for which consumers engage in considerable comparison shopping before making their purchases.

The major retail centers identified above and the shoppers goods supply represented here are concentrated at the periphery of the central and western portions of the metropolitan area where there are larger population centers. By contrast, communities to the east tend to be less populated and as a result are not well served by any large retail concentrations.

The extensive highway network that links the SMSA to other nearby metropolitan areas and the proximity of various regional centers to one another leads to an overlapping of trade areas among regional centers, characteristic of retailing patterns throughout the United States.

The map on the following page graphically displays the locations of these centers for which more detailed information is provided in Section III (B).

Anchor Stores Current Status and Future Plans: Department stores, both with respect to their locations and coverage, are of prime importance in understanding area-wide retailing patterns.

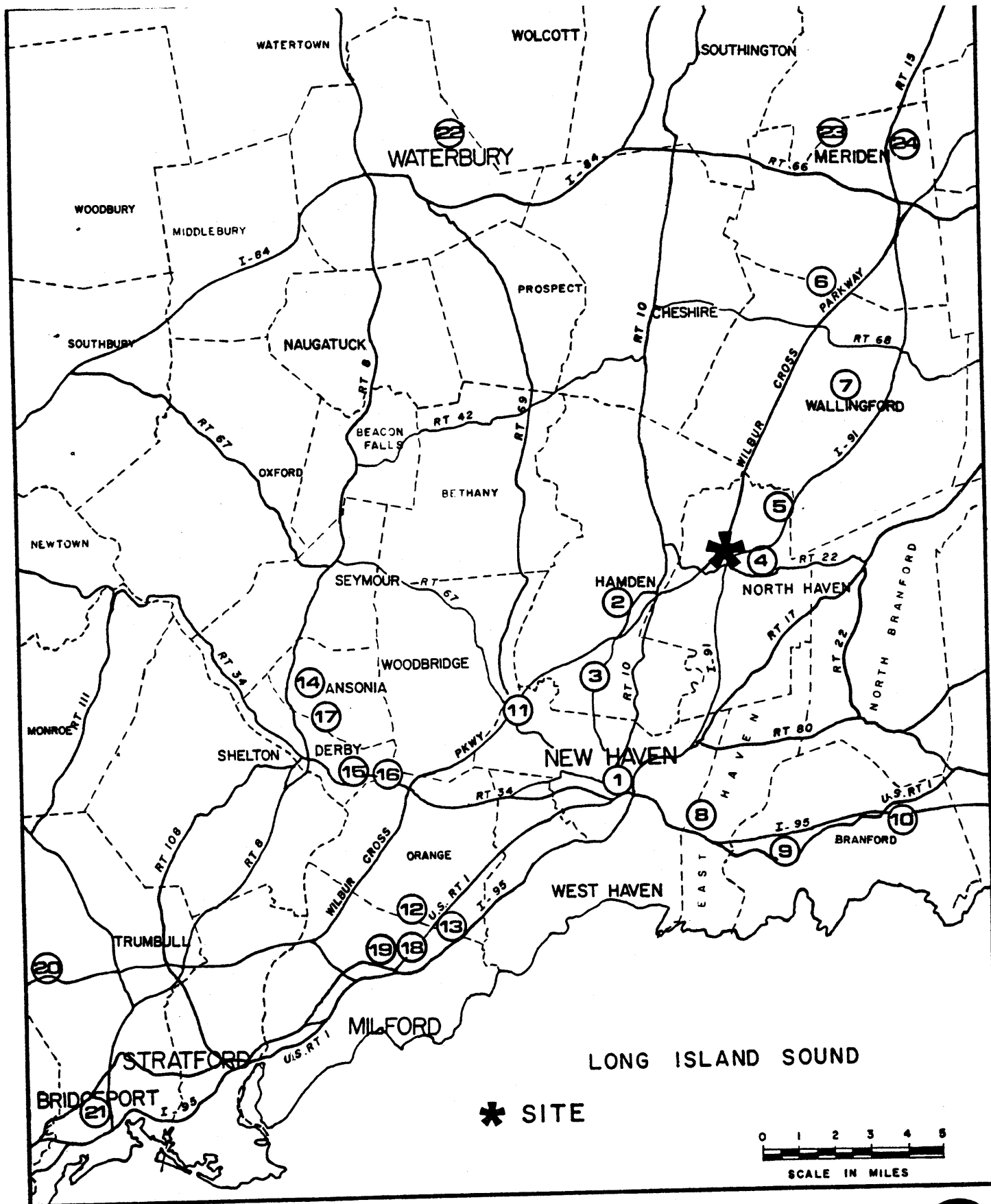
This understanding, moreover, is essential to any impact analysis since these stores exert a predominant influence as "major retailers" in the existing and future retail supply distribution governing any area.

Since retailing is a highly competitive field in which all retailers -- especially large chains -- are constantly vying for increased volumes through improved sales penetration and market position, the current status and future plans of these "anchors" presents an important point of departure for evaluating future impacts between and among major centers.

The position of major department stores is both a function of their individual retailing strengths as well as a combination of stores that work together in providing an overall or total retailing environment.

The development form that can accommodate this type of cooperative action increasingly has been the creation of comprehensively planned centers which make available physical space appropriately configured to accommodate both anchor stores and associated specialty retailers in so-called "mall shops."

Together the two groups complement one another and make available a full line of retailing services that will be both attractive and viable in the marketplace.



NORTH HAVEN MALL
 VALLEY SERVICE ROAD
 NORTH HAVEN, CONNECTICUT

SELECTED MAJOR SHOPPING CENTERS
 NEW HAVEN REGION



SELECTED SHOPPING CENTERS

1980

<u>Map Key</u>	<u>Name/Location</u>	<u>Date Opened</u>	<u>Total Square Feet</u>	<u>Major Tenants</u>
<u>SMSA</u>				
1	Chapel Square Mall New Haven	1967	600,000	Macy's, Malley's (vacant)
2	Magic Mile, Hamden			
	A. Hamden Plaza	1955	300,000	Marshalls, Child World
	B. Hamden Mart	1960	300,000	Bradlees, Stop & Shop, Howlands
	C. Caldor Shopping Center	N/A	N/A	Caldors, Pagnataro's Food
	D. Sears	N/A	N/A	Sears
3	Acme Mall Hamden	1970	201,600	Kings, Pagnataro's Food
4	Woolco Plaza North Haven	1973	135,000	Woolco, Food Mart
5	North Haven Shopping Center North Haven	1950	N/A	Stop & Shop
6	Wallingford Plaza Wallingford	1969	129,500	Caldor, Food Mart
7	Wallingford Shopping Plaza Wallingford	1974	135,000	K-Mart, First National
8	Frontage Road East Haven	N/A	N/A	K-Mart, A&P, Bradlees, Stop & Shop
9	Branhaven Plaza Branford	1972	175,012	Caldor, Food Mart
10	Branford Shopping Plaza Branford	N/A	N/A	Woolco, Stop & Shop
11	Amity Road Shopping Center New Haven	1961	131,200	Stop & Shop
12	Peck Lane Plaza Orange	1974	152,000	Woolco, A&P
13	Whiteacre Orange	N/A	252,000	Sears', Marshall's Stop & Shop
<u>Non-SMSA</u>				
14	Ansonia Mall Ansonia	1971	180,870	K-Mart, Finast
15	Orange-Derby Shopping Center Derby	1973	175,012	Reads, Klarides
16	Caldor Shopping Center Derby	1974	230,000	Caldor, Shop Rite
17	Valley Shopping Center Derby	1958	130,000	Bradlees, Woolworths, Stop & Shop
18	Connecticut Post Shopping Center Milford	N/A	800,000	Alexanders, Stop & Shop, Caldors
19	Milford Plaza Milford	1958	125,000	Kings, Finast
20	Trumbull Shopping Park Trumbull	1963	834,000	G. Fox, Reads
21	Lafayette Plaza Bridgeport	1968	720,000	Sears, Gimbel's
22	Naugatuck Valley Mall Waterbury	1969	500,000	G. Fox, Sears
23	Meriden Square Meriden	1971	546,000	J.C. Penney, G. Fox
24	Meriden Mall Meriden	N/A	300,000	Stop & Shop
Not Shown	Westfarms West Hartford	1974	1,009,115	G. Fox, J.C. Penney, Sage-Allen

Source: Shopping Center Directory; Gladstone Associates Field Survey.

Locational decisions on the part of major retailers represent a substantial long-term investment which must ultimately be based on decisions to access substantial and sustainable sales levels. These decisions, which are arrived at through deliberate and painstaking internal evaluations, take special account of location, highway access, potential increased market penetration and -- of equal importance -- a variety of considerations in conjunction with a proposed regional center's physical configuration. Corporate strategies for major retail organization in relation to branch locations take account not only of individual sites but also possible future locational decisions of other competitive retailers. Thus, anchor stores singly and in combination are a major influence on the structure of regional retailing.

With that background, the current status and anticipated plans of department stores presently operating or seeking to enter the New Haven area has been fully reflected in the impact study presented herein. A brief summary of the current status and future plans for these organizations -- based on direct discussions with market analysts, real estate managers and other representatives of the companies in question -- follows.

Sears, Roebuck and Company

As with all other organizations approached in the course of this evaluation, corporate management here views the New Haven area as a "two-store" region. Stated in other terms, the level of anticipated shoppers goods expenditures coupled with the geographic structure of the region is viewed as capable of supporting two stores, properly located, for a single major retailing organization.

Both of these stores would be full-line operations providing, across the board, all of the commodities and services that the organization is capable of delivering.

Sears presently operates a 100,000 square foot facility within the Magic Mile district in Hamden. This store is not inadequately sized to meet Sears' corporate plans for this portion of the New Haven metropolitan area.

As a result, the corporation has planned to move into the proposed North Haven Mall thereby upgrading the size and providing contemporary fixturing in its new facility. While no official policy has been established, it seems likely that Sears would no longer maintain its Hamden operation given the proximity of this location to the North Haven Mall site. (As noted elsewhere within this report, however, the space that might be vacated in Hamden is viewed as an excellent retail facility and likely would continue in retail use.)

Sears also operates a 60,000 square foot store at White Acres Shopping Center in Orange. While no specific plans have been made in relation to that operation, it would continue for the foreseeable future as part of the "two-store" strategy noted above.

G. Fox

This long-established Connecticut-based department store does not presently operate a branch within the metropolitan New Haven area.

Nevertheless, G. Fox has served segments of the metropolitan market through peripheral stores at Meriden Square to the northeast and Naugatuck Valley Mall to the northwest and Trumbull Shopping Park to the west.

In line with a corporate strategy now in place, G. Fox's first entry into the market would be the programmed North Haven Mall store.

Thereafter, further deliberation will be given to the possibility of a second store in light of the organization's present branches which include the aforementioned Meriden and Naugatuck Valley and Trumbull outlets.

Patently, the commitment made to North Haven indicates G. Fox's perceptions of area purchasing power and its desire to increase market penetration with respect to this, as yet, unserved part of the state vis-a-vis its other store locations.

J. C. Penney

Currently operating a full line store at Meriden Square consisting of approximately 140,000 square feet and a nominal 12,000 square foot outlet on Washington Street in North Haven (as a temporary solution awaiting development of the North Haven Mall), this chain has formulated a "two-store" strategy to serve south central Connecticut for some time.

At present, the immediate plans for J.C. Penney contemplate a North Haven Mall branch, replacing a similar operation (though of a smaller and somewhat older design) which formerly operated within Hamden's Magic Mile.

Discussions with market analysts and management officials conducted in the course of this evaluation indicated that no other near-term plans are in place with reference to a second location either directly within metropolitan New Haven or on the periphery that might serve areas to the west.

The Fourth Anchor

Two other department stores, Macy's and Sage-Allen, have expressed a strong interest in participation in the Mall.

Macy's remains committed to continued operations in the New Haven central business district, where it has a store of approximately 200,000 plus square feet featuring a full line of merchandise. The store seeks to complement that unit to gain greater penetration into new market areas to the north and east of its downtown branch.

Sage-Allen, a Connecticut based department store, has expressed a continuing interest in participating in the proposed Mall. This intent has been reaffirmed most recently by the store's management, which remains committed to serving the south-central position of the state through its long range corporate plans.

Other Department Store Representation

The Edward J. Malley store in downtown New Haven's Chapel Square Mall was the only other major, non-discount department store in the metropolitan area at the time the DEIS was prepared. It has since discontinued operations. This development, which occurred in Spring of 1982, resulted from inadequate sales which likely reflected downtown's limited trade areas. It occurred despite various management attempts to reverse sales declines.

Discount: All other retail nodes of consequence are principally anchored by discount department stores^{1/} and/or large scale supermarkets. Included here are such operators as:

- Bradlees, at:
 - Magic Mile in Hamden;
 - Frontage Road in East Haven;
 - Valley Shopping Center in Derby;
- Caldors, at:
 - Wallingford Plaza in Wallingford;
 - Branhaven Plaza in Branford;
 - Caldor Shopping Center in Derby;
 - Connecticut Post in Milford;

^{1/} See Glossary.

- K-mart, at:
 - Wallingford Plaza in Wallingford;
 - Frontage Road in East Haven;
 - Ansonia Mall in Ansonia;
- Zayres at Orange/Derby Shopping Center in Derby;
- Woolco, at:
 - Valley Shopping Center in Derby;
 - Peck Lane Plaza in Orange;
 - Washington Street in North Haven;
- Kings, at:
 - Milford Shopping Center in Milford;
- Acme Mall in Hamden.

These discount stores represent a different retailing character compared with the conventional department stores described earlier.

As such they occupy a different niche in the retail market place by featuring, as a primary shopping orientation, less expensive goods and services and, for the most part, specializing in soft goods^{1/} with selective appliance presentations.

Virtually all significant metropolitan area shopping nodes (defined as those with 100,000 square feet or more) with the exception of downtown New Haven rely heavily on convenience retail outlets (principally supermarkets) and one or two discount anchor stores with a limited variety of retail lines.

There are a number of retail centers located outside the SMSA which offer a full range of shoppers goods stores and feature in-depth selections in price and product lines. These centers enjoy a substantial sales penetration into the New Haven metropolitan area (as described more fully below.)

^{1/} See Glossary.

In addition to these retail concentrations, there are a number of strip commercial and free standing commercial centers within various metropolitan area towns. These tertiary retailing places primarily serve the retailing needs of the residents of the towns in which they are located. As such, they have limited market penetration. Thus, their individual roles in the larger, metropolitan retailing picture is not significant in comparison to those major retail centers which have been examined in greater detail earlier in this report.

Metropolitan Shoppers Goods Sales Outlook

The level of metropolitan shoppers goods sales to 1985 and 1990 has been forecast in relation to the following factors:

- the outlook for consumer expenditures;
- sales flows in and out of the metropolitan area;
and
- two basic conditions reflecting a baseline or "static supply condition" with respect to metropolitan shoppers goods space and another envisioning a substantial increase in supply in the form of the proposed North Haven Mall.

Key aspects of each of these component elements of metropolitan area shoppers goods sales projections follow in the paragraphs below.

Consumer Expenditures: Demand for goods and services is a function of income available and expended on retail purchases by individuals and households residing within a given area.

This demand is a critical variable in understanding the nature of retailing no matter where such dollars are ultimately spent. Typically, consumer expenditures are largely "captured" within the trade area in which they are generated while some portion is diverted elsewhere in the form of so-called "sales leakage."

Thus, consumer expenditures are not properly measured by the level of sales registered within a given geographic area. Rather, this demand is a function of three principal elements encompassing:

- population;
- personal income; and
- the ratio or percentage of aggregate personal income typically spent for retail goods and services.

Consumer expenditure patterns for metropolitan New Haven have been carefully examined in light of these factors as noted immediately below.

Population/Personal Income: Economic indicators reflecting population and income trends in the immediate past are readily available from United States Census and other (state published) materials on a town-by-town basis.

In general population in the SMSA has increased moderately over the last decade -- 0.2 percent annually from 1970 to 1980. The population in the city of New Haven has continued to decline from 152,000 in 1960 to 137,700 in 1970 to 126,100 in 1980. At the same time, growth in the suburbs has continued at a rate of 0.7 percent annually since 1970. At the present time about 70 percent of the SMSA population is living in areas outside of the city of New Haven.

Per capita income in the SMSA was estimated at \$6,334 in 1977.

In combination these two factors represent (what is termed) aggregate personal income. (See Section III(A) for detail.)

Expenditures as a Percent of Aggregate Personal Income: By contrast, the relationship of consumer expenditures to aggregate personal income is not readily available in published form. Rather, such a ratio or percentage may be derived by identifying -- in the context of larger

geographical areas -- an "equilibrium point" where purchasing power represented by individuals living within that area is judged to be in balance with actual sales recorded.

Thus, in comparing sales against aggregate personal income it is possible to obtain a ratio which represents the "level of expenditures as a percent of aggregate personal income."

This relationship was given careful attention in the course of the study reported herein. The southern New England area -- consisting of Connecticut, Massachusetts and Rhode Island -- was selected as being most representative of a region in balance or in "equilibrium" for this purpose based on the following premises:

- the overall economic base of this large, multi-state region presents similar characteristics for the states individually as well as within sub-areas of the states;
- on balance, retail dollars flowing into the area were offset by retail dollars flowing out resulting in a net equilibrium.

Since the sales inflows and outflows within southern New England appear to be balanced, the region represents an appropriate "prototype" to calibrate the likely level of expenditures as a percentage of aggregate personal income for persons residing in metropolitan New Haven.

Accordingly, our analysis of the region in both 1972 and 1977 shows that shoppers goods sales as a percentage of aggregate personal income remained a constant 13.6 percent. The results of these evaluations, confirmed by 1980 census data are reflected directly below:

RETAIL SALES AS A PERCENT OF INCOME^{1/}
SOUTHERN NEW ENGLAND^{2/}
1972 - 1977
(In 1977 Constant Dollars)^{3/}

	<u>1972</u>		<u>1977</u>	
	<u>Number</u>	<u>As a Percent Aggregate Income</u>	<u>Number</u>	<u>As a Percent Aggregate Income</u>
Population	\$ 9,694,132	--	\$ 9,755,154	--
Per Capita Income	\$ 6,170	--	\$ 6,307	--
Aggregate Income (000's)	\$59,812,794	--	\$61,525,756	--
<u>Shoppers Goods Sales (000's)</u>				
General Merchandise	\$ 4,040,784	6.8%	\$ 4,115,353	6.7%
Apparel	\$ 1,689,143	2.8%	\$ 1,805,344	2.9%
Furniture	\$ 1,519,288	2.5%	\$ 1,363,258	2.2%
Miscellaneous Shoppers Goods	\$ 913,718	1.5%	\$ 1,063,327	1.7%
Total	\$ 8,162,933	13.6%	\$ 8,347,282	13.6%

1/ Adjusted to reflect State Sales Tax.

2/ Includes Rhode Island, Massachusetts and Connecticut.

3/ Converted using total CPI for income and retail CPI for sales.

Source: U.S. Census of Retail Trade; U.S. Census P-25 Estimates; Gladstone Associates.

The data cited above reflect a restatement of 1972 sales in constant 1977 dollars to account for the effects of inflation. This "constant dollar analysis" in relation to past trends is consistent with a similar constant dollar evaluation for future conditions as projected further below in this report.

Metropolitan New Haven Shoppers Goods Expenditures 1972-77: On the basis of overall population and income patterns discussed more fully elsewhere in this report (Section III(A), Background Economic Indicators), metropolitan shoppers goods expenditures in 1977 have been estimated at \$354.7 million (in constant 1977 terms), up slightly (0.3 percent annually) from an estimated \$350.4 million in 1972.

These changes for the entire metropolitan area were a function of a modest increase in population and, of key importance, sizeable increases in personal income -- almost at one percent per annum in real terms -- despite the mid-1970's recession. Virtually all of these gains took place in the suburban fringe areas. Equally as significant, the level of consumer expenditures for shoppers goods varied between the core city of New Haven and other communities in the metropolitan area.

By way of illustration, the total urban core expenditure declines for 1972 to 1977 occurred in the central city while other cities and towns in the urban core registered minor increases (see Section III(B)(1), Retail Trends). By contrast, the balance of the metropolitan area -- all of which would be served by the North Haven Mall -- showed reasonably strong average annual increases, as may be seen in the table which follows.

SHOPPERS GOODS EXPENDITURES

NEW HAVEN SMSA

1972 - 1977

(In Thousands of 1977 Constant Dollars)

	<u>1972</u>	<u>1977</u>	<u>Average Annual Change</u>
Urban Core ^{1/}	\$204,062.5	\$194,102.4	-1.0%
Balance of SMSA	<u>\$146,364.9</u>	<u>\$160,834.3</u>	2.0%
Total SMSA	\$350,427.4	\$354,936.7	0.3%

1/ Includes New Haven, East Haven and West Haven

Source: Gladstone Associates.

-- The preceding analysis of consumer expenditures for shoppers goods within metropolitan New Haven provides basic information upon which to analyze sales flow in and out of the area as noted immediately below.

Shoppers Goods Sales Flows: Of key interest to this analysis is an understanding of the flows of sales into and out of the metropolitan New Haven area. Metropolitan (SMSA) shoppers goods sales for 1977 (the most recent year for which census information is available) were compared against an estimated level of SMSA consumer expenditures as presented in the table below. (Expenditures were estimated at 13.5 percent of aggregate income. See Section III(D), Methodology). This comparison indicates the general direction of sales flows within the metropolitan area which showed a modest net inflow for 1977.

Metropolitan Shoppers Goods Sales	\$374.8 million
Metropolitan Area Consumer Expenditures	<u>\$354.7 million</u>
Net Inflow	\$ 20.1 million
Net Inflow as a Percentage of Metropolitan Shoppers Goods Sales	5.4%

Of importance, however, is the detailed sales flows, on a town by town basis, into and out of metropolitan New Haven since these reflect, along with other factors noted earlier, the central information with respect to the public need for the retail services to be provided by the North Haven Mall. Four principal aspects of sales flows have been identified in this respect:

- Sales Outflow representing consumer expenditures on the part of metropolitan area residents which are being spent at locations outside of the metropolitan area;
- Untapped Inflow Potentials standing for the consumer expenditures of individuals outside of the metropolitan area which are spent at locations also outside of the metropolitan area;
- Sales Inflows accounting for consumer expenditures on the part of non-metropolitan area residents which are registered as sales within metropolitan area retail outlets; and

-- Sales Retention representing consumer expenditures on the part of metropolitan area residents which are reported as sales by metropolitan area establishments.

Each of these individual components of consumer expenditures have been carefully examined in the context of this technical memorandum.

The methodology employed in this respect is detailed in Section III(D), of this report. (A graphic portrayal of the analysis techniques engaged here together with the logic associated with this approach may be seen in the exhibit which follows.)

The process starts with reported sales for major retail centers, individual municipalities and the metropolitan area as a whole as set forth in the United States Census of Retail Trade. In addition, previously noted data on population, income and expenditure patterns have been utilized to establish control totals for overall shoppers goods sales and expenditure levels for each of the municipalities and selected major retail centers under examination.

Critical to this latter analysis -- i.e., tracing sales and expenditure levels by municipality and major retail centers -- has been detailed short-purpose trip data published by the Connecticut Department of Transportation. These trip data detail, by sub-municipal zone, the origination and destination of all short purpose trips in the state. Through this analysis it was possible to estimate sales destinations of expenditures originating from each town within the SMSA. This process is explained more fully in Section III(D), Methodology.

On the basis of this information, detailed expenditure-sales comparisons were carried out in matrix form for 380 data cells (i.e., 19 sales originations and 20 sales destinations or store locational points).

In summary form, the results of this analysis of 1977 shoppers goods expenditures in relation to reported sales may be seen in the Table which follows.

SHOPPERS GOODS SALES FLOWS

NEW HAVEN SMSA

1977

<u>Sales Components</u>	<u>Volume (000's)</u>
Metropolitan Shoppers Goods Sales ^{1/}	\$374,813
Sales Retention ^{2/}	\$282,959
Sales Inflows ^{3/}	\$ 91,854
Metropolitan Consumer Expenditures ^{4/}	\$354,701
Sales Retention ^{2/}	\$282,959
Sales Outflows ^{5/}	\$ 71,742
Net Inflow (\$91,854 ^{3/} - \$71,742 ^{5/})	\$ 20,112

Note: The following footnotes key the above summary figures to the detailed sales flow matrix for 1977 which is presented on the two tables which appear later in this section.

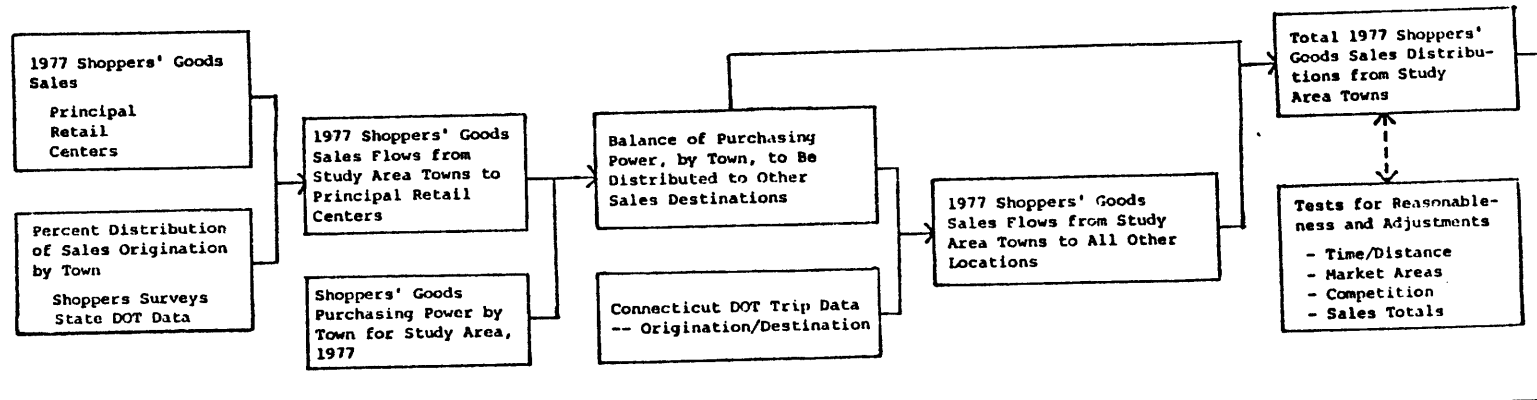
- 1/ Represents the sum of all SMSA columns ("Center Within SMSA" and "SMSA Cities/Towns") and equals sales reported by U.S. Census Bureau and adjusted for sales tax by Gladstone Associates, as noted.
- 2/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."
- 3/ Difference of the first two lines, by definition.
- 4/ Total of "Shoppers Goods Purchasing Power" column for "SMSA Cities/Towns" rows.
- 5/ Difference of the preceeding two lines, by definition.

Source: Gladstone Associates.

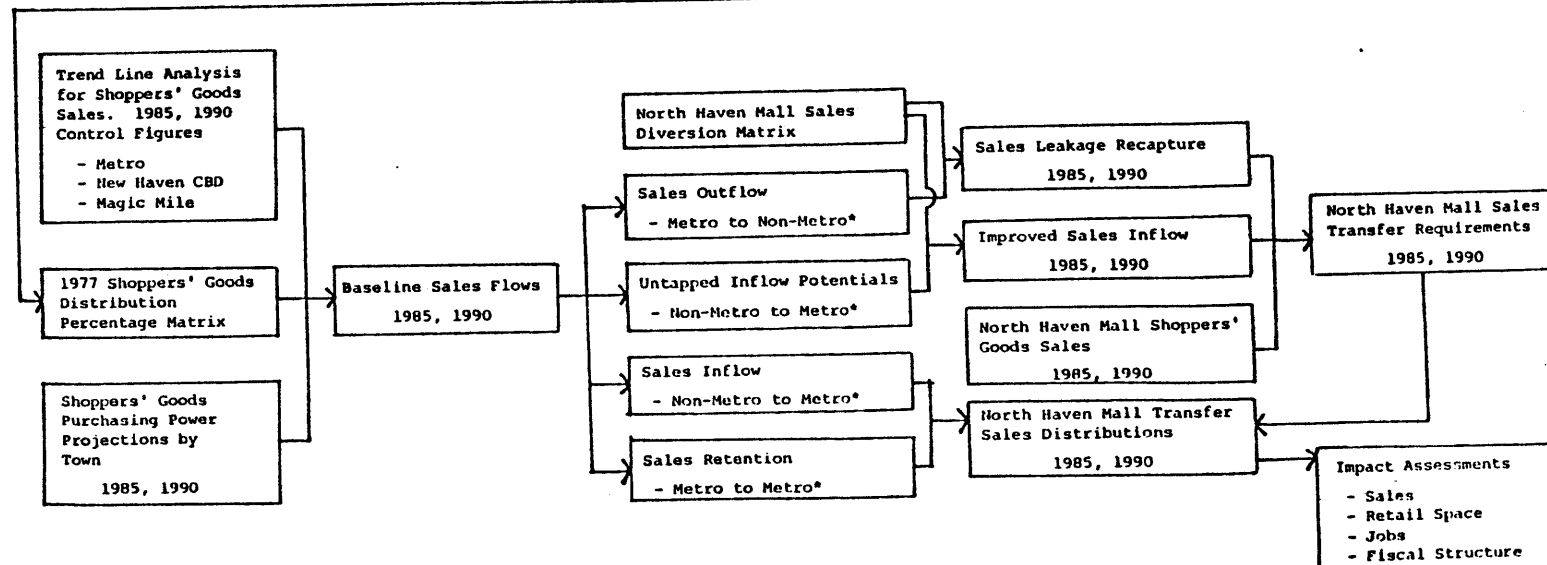
Specifically, the analytic approach identifies discrete components of sales flows in relation to metropolitan area shoppers goods expenditures on the one hand and reported sales by metropolitan establishments on the other.

GENERAL METHODOLOGY RETAIL IMPACT ANALYSIS

1977



1985/
1990



* Reflects Origination/Destination or place of consumer residence to place of sales transaction.

By tracing the flows in the table above, retail establishments within the metropolitan area reported 1977 shoppers goods sales of \$374.8 million. The analysis indicates that only \$283.0 million of this total came from metropolitan area residents. Thus, \$91.8 million originated with non-metropolitan residents and is labelled "Sales Inflow."

Further, the analyses indicate that people living within the metropolitan area actually spent \$354.7 million on shoppers goods in 1977. As noted above, however, only \$283.0 of this total was spent at establishments inside the metropolitan area. Thus, metropolitan residents spent \$71.7 million on shoppers goods at retail stores located outside the metropolitan area. This element is labelled "Sales Outflow."

The two tables which follow display the full detail for 1977 sales flows keyed to the summary table above.

A key issue posed in relation to the future outlook of metropolitan New Haven retailing patterns, with respect to public need, pertains to possibilities for reversing current sales outflows and maintaining or increasing sales inflows from non-metropolitan area residents.

Additionally, a delineation of the components of sales flows as set forth above also serves as a basis for estimating likely future shoppers goods sales within the metropolitan area under "baseline" conditions as well as those pertaining to added retail supply -- the two conditions which have been postulated with respect to examining both the outlook for metropolitan area retailing and prospective impacts on existing retail concentrations as covered in the sections which follow.

Shoppers Goods Sales Baseline -- 1985-1990: Metropolitan area shoppers goods sales levels anticipated for the mid and end of the present decade have been established by two scenarios. The first of these -- the baseline condition -- assumes that the inventory of shoppers goods

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS

NORTH HAVEN MARKET AREA

1977

(In Thousands of 1977 Constant Dollars)

	Shoppers Goods Purchasing Power	Centers With SMSA				Centers Outside SMSA					Subtotal Outside SMSA	Total	Balance Shoppers Goods Purchasing Power
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley			
North Haven	22,311	6,631	5,669	133	12,433	52	0	729	560	43	1,384	13,817	8,494
New Haven	84,720	36,705	9,035	2,249	47,989	455	467	487	261	77	1,747	49,736	34,984
Wallingford	32,182	1,025	7,145	68	8,238	32	0	4,970	2,129	121	7,252	15,490	16,692
Hamden	47,900	6,651	20,668	384	27,703	107	467	487	784	114	1,959	29,662	18,238
North Branford	9,801	1,175	1,121	43	2,339	20	0	1,981	336	19	2,356	4,695	5,106
East Haven	19,160	6,380	1,477	242	8,099	87	0	0	0	24	111	8,210	10,950
Bethany	4,188	1,427	768	105	2,300	36	0	0	37	70	143	2,443	1,745
Woodbridge	12,582	1,427	354	666	2,447	127	0	0	186	20	333	2,780	9,802
Orange	15,937	1,427	354	5,806	7,587	1,148	467	0	0	19	1,634	9,221	6,716
West Haven	42,323	9,317	591	6,586	16,494	1,659	975	0	0	34	2,668	19,162	23,161
Branford	22,961	4,197	1,477	133	5,807	52	0	0	0	0	52	5,859	17,102
Guilford	16,953	1,343	354	59	1,756	30	0	0	186	0	216	1,972	14,981
Madison	14,485	1,175	0	34	1,209	20	0	0	411	0	431	1,640	12,845
Clinton	9,199	84	0	0	84	0	0	0	0	0	0	84	9,115
Subtotal	354,701	78,964	49,013	16,508	144,485	3,825	2,376	8,654	4,890	541	20,286	164,771	189,930
Durham	4,554	0	0	0	0	6	0	1,008	859	17	1,890	1,890	2,664
Middlefield	3,028	0	0	0	0	4	0	487	1,120	29	1,640	1,640	1,388
Meriden	46,711	0	354	31	385	16	0	22,944	6,386	306	29,652	30,037	16,674
Cheshire	21,096	839	4,489	46	5,374	22	0	1,252	4,070	1,118	6,462	11,836	9,260
Subtotal	75,388	839	4,843	77	5,759	48	0	25,691	12,435	1,470	39,644	45,403	29,985
Total SMSA and Selected Non-SMSA	430,089	79,803	53,856	16,585	150,244	3,873	2,376	34,345	17,325	2,011	59,930	210,174	219,915
Other Non-SMSA	--	4,140	1,305	10,411	15,856	15,048	60,002	6,056	110,162	74,766	266,034	281,890	--
Total Center Sales	--	83,943	55,161	26,996	166,100	18,921	62,378	40,401	127,487	76,777	325,964	492,064	--

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS

NORTH HAVEN MARKET AREA

1977

(In Thousands of 1977 Constant Dollars)

	Balance Shoppers Goods Purchasing Power	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Gulford	Madison	Clinton	Durham	Middlefield	Meriden	Cheshire	Milford	Other
North Haven	8,494	3,652	255	1,104	339	72	339	0	170	85	0	0	0	0	0	0	0	0	255	0	2,223
New Haven	34,948	1,399	18,541	700	1,049	0	1,399	0	0	2,799	1,399	700	0	0	0	0	0	0	0	700	6,298
Wallingford	16,692	2,170	500	9,848	167	140	334	0	0	0	167	334	0	0	0	0	0	1,335	334	0	1,363
Hamden	18,238	2,371	2,189	548	6,018	0	183	0	183	183	183	0	0	0	0	0	0	183	183	0	6,014
North Branford	5,106	766	255	307	51	430	357	0	0	0	0	613	85	0	0	51	0	51	0	0	2,140
East Haven	10,950	438	2,518	109	219	184	3,613	0	0	219	328	1,643	93	0	0	0	0	0	0	109	1,477
Bethany	1,745	70	157	35	70	0	0	593	140	52	52	0	0	0	0	0	0	0	35	35	506
Woodbridge	9,802	392	1,961	98	392	0	0	0	3,725	784	294	0	0	0	0	0	0	0	0	392	1,764
Orange	6,716	67	538	0	67	0	0	0	67	2,820	806	0	0	0	0	0	0	0	0	1,276	1,075
West Haven	23,161	232	3,938	0	0	0	232	0	0	3,938	9,033	232	0	0	0	0	0	0	0	2,316	3,240
Branford	17,102	171	1,710	0	171	0	1,540	0	0	0	171	10,775	590	0	0	0	0	0	0	171	1,803
Gulford	14,981	150	599	0	0	0	450	0	0	0	0	2,098	6,761	501	103	0	0	0	0	0	4,319
Madison	12,845	128	257	128	0	0	257	0	0	0	0	899	2,073	2,401	436	0	0	0	0	0	6,266
Clinton	9,115	0	91	0	0	0	0	0	0	0	0	273	343	1,115	1,750	0	0	0	0	0	5,543
Subtotal	189,930	12,006	33,509	12,877	8,543	826	8,704	593	4,285	10,880	12,433	17,567	9,945	4,017	2,289	51	0	1,569	807	4,999	44,031
Durham	2,664	0	27	187	0	0	0	0	0	0	0	27	68	23	0	746	79	54	0	0	1,453
Middlefield	1,388	0	0	69	0	0	0	0	0	0	0	0	0	0	0	28	305	97	0	0	3,835
Meriden	16,674	0	167	3,168	0	0	0	0	0	0	0	0	0	0	0	0	0	9,171	333	0	3,835
Cheshire	9,260	371	185	741	185	0	0	0	0	0	0	0	0	0	0	0	0	185	4,631	0	2,962
Subtotal	29,985	371	379	4,165	185	0	0	0	0	0	0	27	68	23	0	774	384	9,507	4,964	0	9,139
Total SMSA and Selected Non-SMSA	219,915	12,377	33,888	17,042	8,728	826	8,704	593	4,285	10,880	12,433	17,594	10,013	4,040	2,289	825	384	11,086	5,771	4,999	53,169
Other Non-SMSA	--	2,406	15,599	13,483	312	143	1,152	402	913	23,370	3,855	2,319	902	104	58	--	--	10,053	5,668	38,229	--
Total Sales	--	14,783	49,487	30,525	9,040	969	9,856	995	5,198	34,250	16,288	19,913	10,915	4,144	2,347	--	--	21,129	11,439	43,228	--

floor space within metropolitan New Haven will remain relatively constant, much as it did throughout the 1972-77 period.

The second of these -- the incremental supply condition -- as the term implies is predicated on a substantial addition of retail space in the form of the proposed North Haven Mall.

Each of these conditions has been analyzed on a conservative basis in several respects.

First, no growth -- in real terms -- is forecast for personal income on a per capita basis. While implicitly contrary to the anticipated gains in employment forecast for the region through State of Connecticut sources -- and past personal income gains as well, reflected for 1970-80 -- the analysis which follows incorporates this "no growth" assumption to examine the implications on retail sales on the "low side" of an income range in the period ahead.

Second, population projections established by the State's Office of Policy and Management have also been utilized although they too are judged to be on the conservative side. (Given the level of employment projected over the next 20 years, it is judged that these increases may likely be accompanied by similar increases in population.)

For comparative purposes, we have also examined the outlook for metropolitan shoppers goods expenditures under a more realistic and probable real income growth rate of 1 percent per annum. This change in income growth assumptions, as may be seen below, increases the outlook for shoppers goods expenditures by an order of 8 percent (e.g., \$392.1 million as compared to \$362.1 million for metropolitan area residents in 1985 as may be seen in the Table below.)

Under the conservative working assumptions of no growth in per capita real income and only nominal population increases, the expenditure levels for the metropolitan area in shoppers goods are expected

to go from \$354.7 million in 1977 to \$362.1 million and \$368.5 million, respectively, in 1985 and 1990.

More detail with respect to the outlook for metropolitan area shoppers goods expenditures throughout the 1980's on the basis of the aforementioned assumptions may be seen in the table which follows.

Baseline Sales Forecasts: Future shoppers goods volumes in the metropolitan area, as previously noted, will be a function of sales inflows and outflows, sales retention and untapped inflow opportunities.

Under the baseline condition, the improved inflows sales component is not expected to occur without substantial floor area additions in retail supply.

Each of the other components have been estimated on the basis of the information outlined in 1977 sales patterns. These estimates were based on the metropolitan flow analysis on a town by town and metropolitan retail center basis as noted previously.

SHOPPERS GOODS EXPENDITURES

NEW HAVEN SMSA

(In Millions of 1977 Constant Dollars)

	<u>1977</u>	<u>1985</u>	<u>1990</u>
Scenario 1 ^{1/}	\$354.7	\$362.1	\$368.5
Scenario 2 ^{2/}	\$354.7	\$392.1	\$419.4

^{1/} Assumes 0 percent income growth.

^{2/} Assumes 1 percent real income growth per year.

Source: Gladstone Associates.

Forecasts for metropolitan area shoppers goods sales, reflecting each of the aforementioned assumptions regarding real growth in per capita personal income are presented immediately below.

As may be seen, on a conservative basis metropolitan area shoppers goods sales are expected to effectively level off at approximately \$366 million in 1990. Were a more likely scenario of real per capita income growth of 1.0 percent annually considered, those sales levels would be up to more than \$416 million in 1990.

The profile of metropolitan area shoppers goods sales for 1990 under both of the working assumptions may be seen in the table immediately below.

BASELINE
SHOPPERS GOODS SALES FLOWS
NEW HAVEN SMSA
1990

<u>Sales Components</u>	<u>Volumes (Millions)</u>	
	<u>Scenario 1</u>	<u>Scenario 2</u>
Metropolitan Shoppers Goods Sales ^{1/}	\$365.5	\$416.1
Sales Retention	<u>\$292.4</u>	<u>\$332.9</u>
Sales Inflows	<u>\$ 73.1</u>	<u>\$ 83.2</u>
Metropolitan Consumer Expenditures	\$368.4	\$419.4
Sales Retention	<u>\$292.4</u>	<u>\$332.9</u>
Sales Outflows	<u>\$ 76.0</u>	<u>\$ 86.5</u>
Net Inflow (Outflow)	<u>\$(2.9)</u>	<u>(\$3.3)</u>

^{1/} Total metro shoppers goods sales are calculated as a function of sales retentions. The percentage of total metro sales represented by sales retention has been conservatively increased over time (from 75% in 1977 to 78% in 1985 and to 80% in 1990), thus having the effect of increasing transfer percentage impacts under conditions with the Mall.

Source: Gladstone Associates

In addition to the component sales flows, the net inflow/outflow forecasts under a baseline condition are of particular consequence from a regional economic perspective.

Specifically, the net inflow of \$20.1 million estimated for 1977 would be reversed to a \$2.9 million outflow by 1990 under Scenario 1 and an outflow of \$3.3 million under Scenario 2.

-- Thus, without a significant increase in the region's shoppers goods supply continued erosions of the area's retail economy are expected and area demand for such goods and services will increasingly flow to major centers outside the SMSA.

Projected Shopper Sales -- Incremental Supply Condition: The incremental supply condition, as noted previously, contemplates a major addition of retail space in the form of the proposed North Haven Mall. Under this condition, the metropolitan area will likely gain sales from non-metropolitan locations thereby penetrating currently "untapped inflow potentials."

In addition, further sales gains can be anticipated through increased sales retention and reduced sales outflows. These possibilities have been extensively examined through the methodological approach detailed in Section III(D). Specifically, the origin and destination matrix constructed on the basis of State Department of Transportation data and shoppers surveys allows evaluation of potential competitive impacts and effects on 380 separate sales flow relationships within metropolitan New Haven and a tier of communities immediately proximate to it. The techniques applied in this instance permit the tracing of likely impacts of the North Haven Mall by comparing the previously determined baseline sales levels with those that would occur under the incremental supply condition.

The following sample output from the computer model used in this analysis illustrates the above described approach. In this instance, baseline sales to various sales locations are analyzed by way of their potential diversion to the North Haven Mall.

DETAIL TO ANALYSIS OF SALES RECAPTURE
AND IMPROVED INFLOW
NORTH HAVEN MALL
1990 (0% Income Growth)
(In Thousands of 1977 Constant Dollars)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
NORTH HAVEN					
CONNECTICUT POST	\$ 53	90%	95%	\$ 48	\$ 50
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 745	70%	75%	\$ 522	\$ 559
WEST FARMS	\$ 573	90%	95%	\$ 516	\$ 544
NAUGATUCK VALLEY	\$ 44	90%	95%	\$ 40	\$ 42
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 261	25%	30%	\$ 65	\$ 78
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2271	80%	85%	\$ 1817	\$ 1930
SUBTOTAL	\$ 3947	74%	81%	\$ 3007	\$ 3204
NEW HAVEN					
CONNECTICUT POST	\$ 450	60%	65%	\$ 270	\$ 293
TRUMBULL	\$ 462	70%	75%	\$ 323	\$ 347
MERIDEN SQUARE	\$ 482	85%	90%	\$ 410	\$ 434
WEST FARMS	\$ 258	90%	95%	\$ 232	\$ 245
NAUGATUCK VALLEY	\$ 76	80%	85%	\$ 61	\$ 65
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 692	45%	50%	\$ 311	\$ 346
OTHER	\$ 6230	75%	80%	\$ 4673	\$ 4984
SUBTOTAL	\$ 8650	73%	78%	\$ 6280	\$ 6713

For example, based upon sales flows detailed above, it is projected that, in 1990 under a baseline situation, North Haven residents would spend \$745,000 at Meriden Square. Under an incremental supply condition, however, (that is the North Haven Mall) some North Haven residents who would have shopped at Meriden Square will instead shop at the North Haven Mall. It is judged that 70 percent to 75 percent of that amount, or \$522,000 to \$559,000, would be diverted to the North Haven Mall. This judgment is based on an evaluation of the likely competitive relationship between the North Haven Mall and, in this case, Meriden Square, vis-a-vis the town of North Haven (or whatever origin is under consideration). This evaluation was based on: travel distance; accessibility; department store representation; and, general type and variety of retail goods. (See Section III(D) for more detail.)

Projected Increased Supply Shoppers Goods Sales: Upon completion, the North Haven Mall will generate an estimated \$85 million in shoppers goods sales. This level reflects full industry productivity factors that can be reached approximately three to five years after Mall opening or, as presently contemplated, by the late 1990's.

Detailed information with respect to the proposed North Haven Mall is described in Section III(C). In brief, however, it is anticipated that the Mall would include approximately 1.1 million square feet of retail space (gross leasable area) of which 400,000 square feet would represent Mall shops and 676,000 square feet would be devoted to four anchor stores. The majority of this space would be occupied by shoppers goods retailers in line with the anticipated mix of stores shown immediately below:

ANTICIPATED RETAIL MIX
NORTH HAVEN MALL

<u>User Type</u>	<u>GLA</u>
<u>Retail</u>	
Shoppers Goods	
- Anchors	575,000 s.f. ^{1/}
- Mall Shops	242,000 s.f.
Total Shoppers Goods	817,000 s.f.
Other Retail	169,000 s.f.
Restaurants	90,000 s.f.
Subtotal	1,076,000 s.f.
<u>Non-Retail</u>	
Service and Entertainment	24,000 s.f.
Total Mall	<u>1,100,000 s.f.</u>

1/ Includes 30,000 [±] s.f. available for expansion, but not to be built initially.

Productivity factors, reflected in annual sales volumes per square foot of gross leasable area, have been carefully examined for each of the retail categories noted. These factors together with their corresponding sales volumes -- measured in 1977 constant dollars -- are shown in the table which follows:

<u>Use Type</u>	<u>Productivity Factor</u>	<u>Sales Volume (000)</u>
<u>Retail</u>		
Shoppers Goods		
Anchors	\$ 97/s.f.	\$ 55,775 ^{1/}
Mall Shops	<u>\$121/s.f.</u>	<u>\$ 29,225</u>
Total Shoppers Goods	\$104/s.f.	\$ 85,000
Other Retail	\$118/s.f.	\$ 19,942
Restaurants	<u>\$109/s.f.</u>	<u>\$ 9,810</u>
Subtotal	\$107/s.f.	\$114,752
<u>Non-Retail</u>		
Service and Entertainment	\$ 50/s.f.	<u>\$ 1,200</u>
Total Mall	\$104/s.f.	<u>\$115,952</u>

1/ Includes \$2.9 million related to potential expansion space.

A significant increase in retail shoppers goods supply within metropolitan New Haven would result in several decided gains for this region from the standpoint of shoppers goods volumes. These gains include improved sales inflow and reductions in previously determined sales leakage under the baseline condition.

With the North Haven Mall, therefore, metropolitan area shoppers goods sales are expected to increase appreciably from the previously determined 1990 baseline level of \$365.5 million (zero income growth) to \$426.8 million with the Mall -- a 16.8 percent gain.

SHOPPERS GOODS SALES
INCREASED SUPPLY CONDITION

1985 - 1990

(In Millions of 1977 Constant Dollars)

	<u>Scenario 2</u>		<u>Scenario 2</u>	
	<u>1985</u>	<u>1990</u>	<u>1985</u>	<u>1990</u>
SMSA Baseline Sales	\$368.9	\$365.6	\$399.4	\$416.1
Improved Inflow/ Recapture	<u>59.6</u>	<u>61.2</u>	<u>64.5</u>	<u>69.7</u>
Total SMSA - Increased Supply	<u>\$428.5</u>	<u>426.8</u>	<u>\$463.9</u>	<u>\$485.8</u>

These gains will be even more substantial in the event real income grows during the decade. Specifically, assuming a more realistic and likely scenario of a one percent per annum increase in per capita personal income, 1990 metropolitan area shoppers goods sales would be \$485.8 million with the Mall versus \$416.1 million under baseline.

Prospective metropolitan area shoppers goods sales under each of these conditions -- predicated on an incremental addition of retail floor space supply as represented by the proposed North Haven Mall -- are shown in the table directly above.

Prospective Impacts

Impacts of the proposed North Haven Mall on other metropolitan New Haven retail concentrations, as previously noted, will be a function of "baseline" sales volumes expected for these centers compared with volumes forecast for these centers under the increased supply condition. Capture rates for downtown New Haven and Hamden -- two principal retail centers within the metropolitan area -- have been examined for 1972 and 1977 as a point of departure in this baseline analysis.

As shown in the tabular summary below, downtown New Haven's share of metropolitan shoppers goods sales declined from 26.3 percent in 1972 to 22.4 percent in 1977. Hamden maintained a constant 14.7 percent share of these sales levels for the corresponding period.

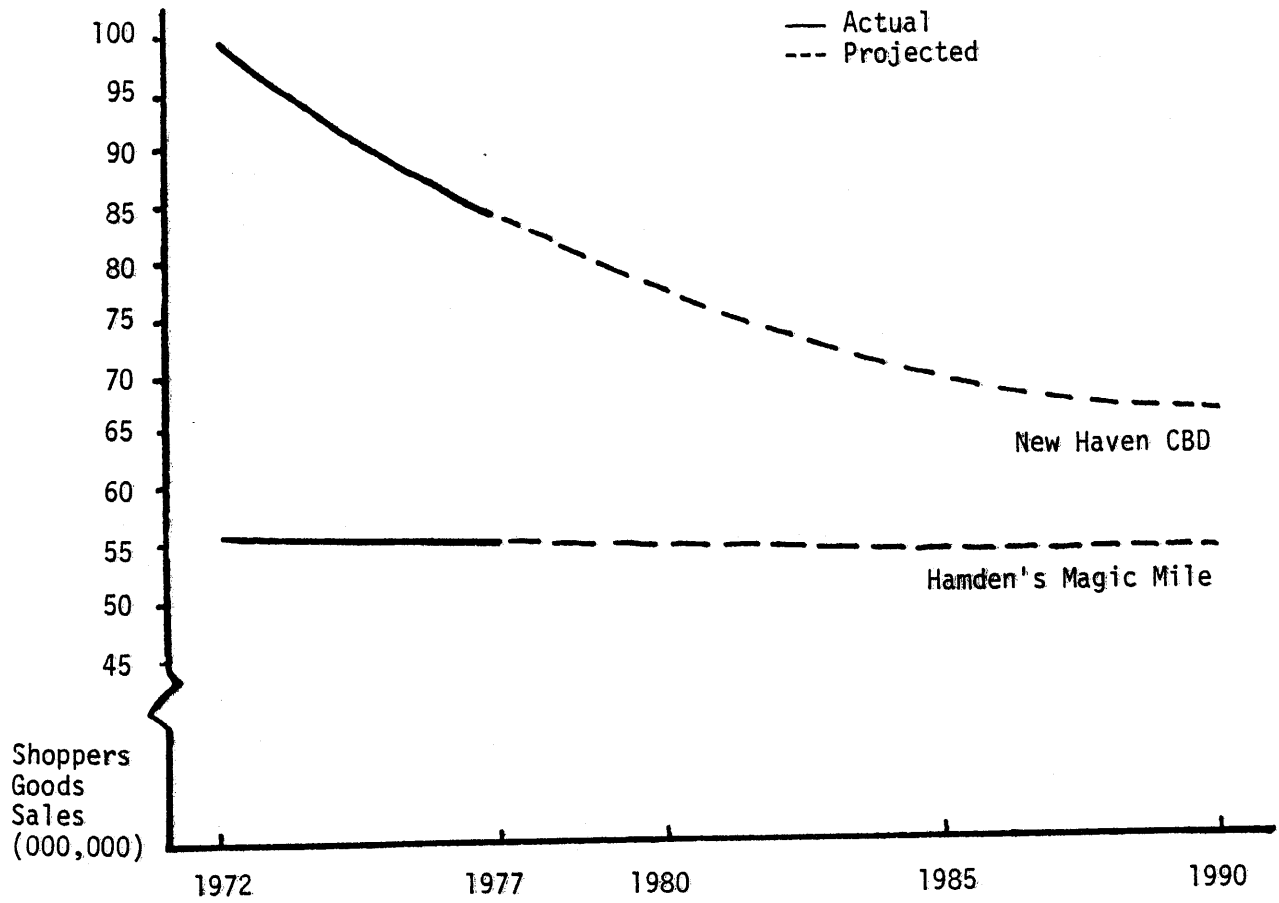
<u>SHOPPERS GOODS SALES "CAPTURE"</u>		
<u>METROPOLITAN NEW HAVEN</u>		
<u>1972, 1977</u>		
<u>Center</u>	<u>Shoppers Goods Sales Shares</u>	
	<u>1972</u>	<u>1977</u>
Downtown New Haven	26.3%	22.4%
Hamden	14.7%	14.7%

The Outlook to 1985 and 1990: In light of the aforementioned trends for the major retail centers, it is judged that, given population growth in suburban areas and recent shopping patterns, the shifts noted for the 1970's are likely to continue in the 1980's. The graph on the following page illustrates this expectation of continued declines, but at moderating rates.

Baseline estimates have been prepared under trend line analysis and on the expectation that any supply changes that may occur would be nominal in line with the "baseline" formulation presented above (in accordance with nominal increases in the supply of retail space in the metropolitan area in recent years as noted earlier).

Other Retail Centers: Given the shifts noted for downtown New Haven and Hamden's Magic Mile as well as overall forecasts of metropolitan shoppers goods sales under the baseline conditions to 1985 and 1990, other retail centers are expected to show nominal increases. These sales volumes, in aggregate terms, are projected as follows:

SHOPPERS GOODS SALES



ESTIMATED SHOPPERS GOODS SALES
BASELINE CONDITIONS^{1/}
(In Millions of 1977 Constant Dollars)

	<u>Sales</u>	
	<u>1985</u>	<u>1990</u>
Downtown New Haven	\$ 73.0	\$ 69.6
Hamden's Magic Mile	\$ 55.2	\$ 55.2
Balance of SMSA	<u>\$271.2</u>	<u>\$291.3</u>
Total SMSA	\$399.4	\$416.1

1/ Scenario 2.

Mall Sales: As noted previously, the level of Mall sales under the incremental supply condition is expected to amount to \$85 million in constant 1977 dollar terms for both 1985 and 1990. (In reality, the Mall would likely not reach this full productivity level, or normalized operations, until three to five years after opening and after development of some 30,000 s.f. of expansion space included in these figures. However, these adjustments are not reflected here and this analysis represents conservative assumptions.)

A majority of these sales will be attributable to the "increased supply" effects of reduced sales leakage and improved sales inflow. Utilizing the State Department of Transportation data previously noted, analysis on a town-by-town and major retail center basis indicates that these two sales components will range between \$61 million and \$70 million by 1990 under the respective "no-growth and "one percent" per capita real income growth scenarios.

The remaining portion of sales attracted to the North Haven Mall will be those "transferred" from other metropolitan area locations, noted as Transfer Sales in the following table:

SOURCE OF SALES
NORTH HAVEN MALL
1985, 1990

<u>North Haven Mall</u>	<u>Shoppers Goods Volumes (Millions)</u>			
	<u>Scenario 1</u>		<u>Scenario 2</u>	
	<u>1985</u>	<u>1990</u>	<u>1985</u>	<u>1990</u>
Sales Leakage Recapture	\$43.6	\$ 44.6	\$47.2	\$ 50.7
Improved Sales Inflow	16.0	16.6	17.3	19.0
Transfer Sales	<u>25.4</u>	<u>23.8</u>	<u>20.5</u>	<u>15.3</u>
Total	\$85.0	\$ 85.0	\$85.0	\$ 85.0

Downtown New Haven/Hamden Impacts: The level of transfer sales estimated above represents volumes that would flow to North Haven Mall which might otherwise be registered in various retail centers throughout the metropolitan area (see Sections III(D)(5) and III(F)).

Under the "worst case" -- i.e., no real per capita personal income growth and the highest transfers projected -- sales diverted from these other centers might amount to \$25.4 million in 1985 and \$23.8 million in 1990. Overall these would represent a "transfer" of 6.9 percent and 6.5 percent, respectively, of metropolitan area baseline shoppers goods sales as forecast earlier in this report and assuming no real income growth.

Under the more likely one percent income growth scenario, transfer sales would be \$20.5 million in 1985 and \$15.3 million in 1990 -- or 5.1 percent and 3.7 percent, respectively, against total metropolitan baseline sales.

Thus, were all retailing concentrations within metropolitan New Haven affected proportionately in relation to these transfers, the level of sales declines relative to the baseline forecasts for the mid and end of this present decade would approximate those percentages.

It is expected, however, that these impacts would be differentiated among all metropolitan centers. Downtown New Haven, for example, will rely increasingly on its primary trade area (noted previously) to account for its shoppers goods sales. Hamden, by contrast, will continue to share sales penetration within the suburban tier of the metropolitan area as well as tapping other communities on the periphery in much the same fashion as that anticipated for the proposed North Haven Mall. The key differences here, of course, relate to the type of merchandising carried out in these respective centers -- with Hamden continuing to be characterized by major discount anchor stores in comparison to the full-line department stores at the proposed North Haven Mall.

Accordingly, it is judged that the impact on Hamden's overall shoppers goods sales and total activity will be limited by virtue of the community's existing complement of retail space. As further support to this prospect, there is reason to believe that even with the departure of Sears -- noted in the report above -- this retail inventory will likely be replaced. Investigations have indicated that several specific offers are likely to be tendered for commercial use should Sears choose to vacate their present Hamden facility after a move to North Haven.

Under these circumstances, and recognizing that differential impacts are likely to occur, it is projected that the level of sales transferred from Hamden will not be greater than \$3.5 million in relation to previously estimated baseline conditions (given a possible Sears shift and subsequent replacement), or approximately six percent of its anticipated baseline sales -- assuming the more probable one percent income growth scenario.

Sales transfers against downtown New Haven would likely be more pronounced in absolute terms (approximately \$4.1 million under Scenario 2 and as much as \$6.4 million assuming no income growth through 1990) but the relative impact would be very much in line with that anticipated for Hamden's Magic Mile.

NORTH HAVEN MALL
SALES TRANSFER IMPACTS

1990

(In Millions of 1977 Constant Dollars)

	<u>Scenario 1</u>		<u>Scenario 2</u>	
	<u>Transfer Volume</u>	<u>Percent of Baseline</u>	<u>Transfer Volume</u>	<u>Percent of Baseline</u>
New Haven CBD	\$ 6.4	9.2	\$ 4.1	5.9
Magic Mile	\$ 5.1	9.2	\$ 3.3	5.9
Balance of Metro	\$12.3	5.1	\$ 7.9	2.7
Total Metro	\$23.8	6.5	\$15.3	3.7

The city's projected baseline includes a replacement for Malley's although none has been announced at this time. While precise information is not available as to that store's sales, prior to closing, an order of magnitude of \$10-\$11 million annually has been reported. Were, for illustrative purposes only, one-third of these sales retained in the CBD, with an appropriate adjustment in baseline sales, the CBD transfer impact is estimated at 9.7% in 1990 under the zero percent income growth scenario.

This distribution of transfer sales impacts amongst New Haven's CBD, Hamden's Magic Mile and the balance of the metro is based on the careful examinations of market areas served and corresponding sales flows previously discussed.

Through anticipated population and personal income growth, metropolitan area consumer expenditures are forecast to increase into the 1990's. Using 1990 as an impact horizon, these analyses indicate that the proposed North Haven Mall will have a limited competitive impact on existing metropolitan area retail centers. Further, through the addition of a substantial amount of incremental retail space in the form of the proposed North Haven Mall, an annual net gain of 17 percent in metropolitan area shoppers goods sales would accrue to the regional economy and, most important, the public need that has up to this point been unmet would be served.

North Haven Impacts: Shoppers goods sales, of course, will increase dramatically in the Town of North Haven with the North Haven Mall.

At the same time, however, there may well be some initial market adjustments and shifting of sales from one location to another within the town. For example, although always considered a temporary location, J.C. Penney's would not retain its present 12,000 square foot store on Washington Avenue, once its new 140,000 square foot full-line store was opened in the mall. It is most likely that this space would be filled by another retail tenant, but there would be an initial transfer of dollars and subsequent market adjustment.

Shoppers goods sales within the Town of North Haven were reported at approximately \$14.8 million in 1977. Of this total, \$11.3 million came from residents of the SMSA plus those four non-SMSA towns analyzed in the course of this study. The remaining \$3.5 million comes from residents outside of these identified areas.

Assuming a continuance of this market area penetration, North Haven's town-wide shoppers goods sales volumes, under baseline conditions, are projected to increase from the \$14.8 million in 1977 to \$19.6 million in 1990, under a zero percent average annual income growth assumption.

Should income follow a more likely growth pattern of one percent annually, then town-wide shoppers goods sales would be more on the order of \$25.6 million in 1990, under baseline conditions.

Generally, it is anticipated that other retailing within the Town of North Haven will benefit from the presence of the North Haven Mall through increased consumer traffic -- at least in the Washington Avenue area. Any potential sales losses or transfers from existing establishments are expected to be nominal, given the generally non-competitive characteristics of present shoppers goods establishments within the town vis-a-vis the North Haven Mall. At least in the short term, however, some shifting of sales from existing retail stores in the town to the North Haven Mall might occur. As described in the table below, these transfer sales might be on the order of \$2.6 million (assuming a one percent average annual income growth) to \$4.0 million (under a zero percent income growth assumption) by 1990. Against baseline sales, these would represent a sales transfer of ten to twenty-one percent (see Section III(F)).

PROJECTED SHOPPERS GOODS SALES

TOWN OF NORTH HAVEN

(In Millions of 1977 Dollars)

	<u>1990</u>	
	<u>Scenario 1</u>	<u>Scenario 2</u>
Town Sales (Baseline)	\$ 19.6	\$ 25.6
Transfers to Mall	\$ 4.0	\$ 2.6
Percent Impact	20.6%	10.1%
Mall Sales	\$ 85.0	\$ 85.0
Town Sales (with Mall)	\$100.6	\$108.0
Percentage Impact	413.3%	321.9%

Source: Gladstone Associates.

Such transfer sales might take the form of: a single retail establishment dividing its efforts between a mall location and another North Haven store; a modest reduction in sales without any corresponding reduction in space; or possibly, the closing of some marginal operations unable to respond to competition. As noted, however, most retail establishments within the town should benefit from the presence of the North Haven Mall, given a greater consumer awareness of retailing activities in this area and improved access to mall-generated traffic on the part of retail establishments here.

The mall itself would add \$85 million in shoppers goods sales to the town's base and, after accounting for the potential sales transfers from other existing retail establishments in the town, would increase shoppers goods sales on a town-wide basis by some 300 to 400 percent above baseline conditions as described in the table above.

5. Mitigation Potentials

Several steps can be taken to mitigate the effects of limited shoppers goods sales declines in metropolitan area retail nodes as a result of the proposed North Haven Mall. Among these are:

- Continued and increased attention to overall planning within affected communities in providing a supportive retailing environment, especially with respect to key factors of access, parking and other amenities demanded by contemporary shoppers.
- Improved merchandising appeal to shoppers within primary trade areas. In the case of downtown New Haven, for example, the increasingly constricted primary trade area for that center relies on the City itself. Accordingly, downtown merchants must be more accute in discerning and serving the needs of that population.

- Effective action with respect to the changing roles for downtown areas and other business districts in relation to office, institutional, and residential developments. In the case of downtown New Haven, for example, this would involve deepening the already established office markets that have been tapped in the past, increasing the area's attractiveness as an entertainment center, improving the housing inventory for downtown workers and others with a central place orientation and enhancing retail opportunities in relation to these "captive" market segments (workers, residents and other users of the area).

As a result of all of these steps, the competitive position of these existing retail nodes can be strengthened and the limited prospective sales impacts forecast here mitigated.

B. Fiscal Impacts

B. FISCAL

Potential fiscal impacts associated with the proposed North Haven Mall have been assessed for the Town of North Haven and, more generally, from a regional perspective.

In sum, the North Haven Mall will generate local property tax revenues substantially in excess of its associated public service costs. The anticipated "surplus" may be used by the town either to reduce the overall property tax rate or pay for increased services or increased costs of services without proportionately raising its tax rate.

From a regional perspective, potential fiscal impacts have been assessed in relation to retail sales transfer impacts within the New Haven-West Haven metropolitan area, as described in Section II(A), above. These potential impacts are expected to be negligible on an individual municipality basis.

1. Town of North Haven

While actual property taxes paid to the Town of North Haven by owners of the North Haven Mall will depend on the particular tax rate in effect at some future point and upon the assessed value actually placed on the Mall, it is estimated that this facility will generate approximately \$1.4 million annually (assuming an assessed value of \$58.6 million -- for both real and personal property -- at the town's current tax rate of \$24.00 per thousand).

The cost of providing public services to the Mall -- police and fire protection, sewage treatment, public works and general governmental

administration -- on an incremental basis are expected to be nominal. However, since the precise public service needs of the North Haven Mall are not known at this time, the following conservative assumptions have been made:

- General Government: There may be certain modest increases in workload with regard to general government activities. It is likely that such demands can be adequately handled by existing staff, but an annual budget increment of \$20,000 is assumed here to accommodate the Mall.
- Police Protection: It is anticipated that the Mall would have its own security force for providing police protection within and around the Mall itself. However, the town may see fit to increase its own police capability in response to the generally higher levels of activity represented by the Mall. Thus, it is again conservatively assumed that an additional police patrol representing two officers and one car might be required at an estimated annual cost of \$70,000.
- Fire Protection: While it is unlikely that the town would need to increase its firefighting capacity in response to the mall's presence, a general expense increase of \$10,000 is assumed.
- Public Works: Again, no specific demands are envisioned, but an annual expense increase of \$10,000 is assumed here for analytical purposes.
- Utilities: It is assumed that for supply of water, sewer collection and treatment, and other utilities, the Mall would pay for such usage through separate user fees unrelated to general property tax revenues. Thus, it is assumed that these elements would be fully covered by such fees.

It is anticipated then that the Mall might generate, at a maximum, demands for public services that might cost the Town of North Haven \$110,000 per year. It should be emphasized that these figures are most likely on the high side and that actual town expenditures for such services would be substantially less. In fact, town officials have indicated

that they project no incremental public service costs in relation to the mall except those capital costs discussed below.

Specifically, the town is required, by the terms of its agreement with the North Haven Mall developers, to provide various capital improvements such as road access and sewer capacity. The agreement, however, limits the amount of capital that the town would have to invest to \$2.5 million.

Assuming that the town might be required to spend the full amount noted above, it would incur annual debt service costs of approximately \$250,000 (for perhaps 20 years), assuming that municipal bonds were used to finance such improvements.

By the terms of the above noted agreement, the owners of the North Haven Mall would be required to pay minimum taxes ranging from \$350,000 in the first taxable year to \$525,000 in the twelfth year of taxation. Again, it should be noted that these are minimum taxes and that actual taxes will be well in excess of such figures -- more on the order of \$1.4 million.

Thus, by contrast, the mall would produce at least a break-even situation under the minimum required taxes in year one, and a surplus of at least \$150,000 under the minimum requirements of year 12. More likely, the mall would generate an annual tax "surplus" of more than \$1 million.

Recognizing that the Town of North Haven will experience at least some level of positive fiscal impact from the mall, the likely anticipated annual tax revenues would, in today's dollars, substantially reduce the present town-wide property tax rate.

That is, against actual 1981 fiscal data for the town, the generation of, say, \$1.4 million in property tax revenues and the expenditure of \$110,000 for public services and \$250,000 in debt service would, on a town-wide basis, reduce the current tax rate of \$24.00 per thousand to \$22.71, a 5 percent town-wide reduction.

Mall Feasibility

The \$1.4 million tax level assumes basic mall feasibility and operational success. Even the minimum taxes noted by way of the development agreement between the town and the project sponsors assumes some minimal level of financial success on the part of the mall and an ability to meet the terms of such an agreement. Given these assumptions, the theoretical question then arises as to the consequences of potential mall failure. That is, what is the "downside" risk to the Town of North Haven, particularly with regard to the capital investment represented by the various improvements that the town would have to make?

Available Market Supports: The extensive analyses undertaken as a principal element of this retail impact study have identified strong market supports available to a project such as the North Haven Mall. For example, the lack of comparable retail facilities within the metropolitan area in conjunction with the estimated \$71.7 million outflow in metro resident shoppers goods purchasing power are indicators of substantial market potentials.

Further, independent analyses undertaken by the research divisions of each of the proposed mall's major department stores -- and their resultant commitments to the mall -- corroborate these findings.

As a result, the market feasibility of the proposed mall is well established and the question of mall failure is essentially a theoretical issue.

In that theoretical vein, however, the above-noted "downside" risk potential is further examined below.

Timing and Ownership: Should the mall not succeed, this eventuality would occur not in the immediate short term, but would unfold over perhaps a ten-year period or longer. The substantial investment represented by the proposed mall would not be relinquished except under the most difficult of circumstances and only after many successive years of unsatisfactory operation. In the meantime, of course, the project sponsors would be committed to the minimum taxes dictated by the above-noted agreement. Thus, these taxes are likely insured throughout the minimum twelve years dictated by the agreement.

Further, the four anchor stores will be owned individually by each of the respective companies. As such, the tax liability for these properties would be associated with that ownership and would not be solely reliant on the project sponsors -- a single business entity.

Re-Use Prospects: Assuming a "worst case" -- which is considered here from a theoretical perspective -- of mall failure, alternative use could be made of the property, given the substantial infrastructure that would be in place, resulting in added contributions to the town's tax base.

One possible option, for example, is for a single major corporate user to take over this substantial amount of space for use as a corporate headquarters. Under such a scenario, values would probably remain fairly high and the town's tax revenue would likely exceed minimum requirements, as previously discussed.

Under a "worst case" perspective, one might anticipate that this space could be re-used for some form of warehousing activity, particularly given the site's excellent highway access. Such a re-use would not support the value levels of a regional mall and would occur only if the original investment value were substantially written down through some liquidation proceedings. This worst case re-use alternative could probably generate annual revenues of \$2.50 to \$3.00 per square foot of warehouse uses.

Assuming that approximately 10 percent of such rentals might go toward real estate taxes, then the worst case re-use proposition would generate annual revenues to the town of perhaps \$250,000 to \$300,000 -- an amount approximately equal to the obligations the Town of North Haven would incur were it to float bonds up to the agreed-upon level of \$2.5 million for meeting mall infrastructure needs in line with the above-described contract.

Thus, under a theoretical mall failure, prospects for at least covering the town's fiscal obligations in line with this proposed project are reasonable. The timing and ownership issue described above provides a "buffer" that would eliminate any fiscal risk that the town might experience.

Most important, however, is the improbability that mall failure would in fact occur, given the available market supports substantiated by the analyses carried out in this study, as well as other independent analyses that form the basis for the major capital investment commitments that have already been made here.

2. Regional Impacts

Regional fiscal impacts associated with the North Haven Mall may come into play with regard to the retail sales impacts noted in Section II(A), above. That is, as retail sales may be reduced within a given municipality -- as a result of the mall's competitive impact -- local property tax revenues associated with the impacted retail space may be diminished if the business purpose to which this space is put is adversely impacted.

At a highly unrealistic extreme, one might trace the potential sales impacts directly through to supportable space, market value, taxable value and property tax revenues on a directly proportional basis under the theory that, over time, reduction in sales volumes will eventually lead to reductions in economic value of space and ultimately to taxable value.

Such an analysis was undertaken and the results are shown in the following table which presents prospective 1990 conditions under the 0% and 1% income growth scenarios, respectively. As shown, under the 0% income growth assumption, the maximum projected reduction in property taxes for any municipality would be approximately four-tenths of one percent, with an "average" municipal level impact of two-tenths of one percent. Under the no income growth scenario, the City of New Haven might experience -- assuming this direct proportional impact on taxable base -- a four-tenths of one percent reduction of total property taxes, all else being equal. Under the one percent income growth scenario, this impact would be approximately three-tenths of one percent.

For the Town of Hamden, such fiscal impacts would be in line -- on a percentage basis -- with those stated for New Haven.

Such minimal potential impacts on a municipality's fiscal structure could be easily offset by a single moderate development in a given municipality. For example, even under these "worst case" assumptions the potential loss to New Haven of \$384,000 in tax revenues could be offset by about 75,000 square feet of Class A office development.

It should be noted, however, that these minimal fiscal impacts from a regional perspective would likely be even less significant. Specifically, it is probable that the direct proportional fiscal impact resulting from retail sales diversions will not take place. That is, even if individual retail establishments within a given municipality experience some diminution of retail sales it is unlikely that, on an individual establishment basis, they will be at such a level as to induce an actual reduction and elimination of such space from municipal tax rolls. Further, even in the event retail operations were to cease in a given location it is most likely that the associated property would find an alternative use and continue to generate local taxes. Thus, it is judged that any region-wide fiscal impacts will be even less than those shown in the aforementioned table.

In any event, regional fiscal impacts are expected to be nominal.

FISCAL IMPACTS/NORTH HAVEN MALL

NEW HAVEN - WEST HAVEN SMSA

1990

(In 1977 Constant Dollars)

	Mall Sales Impact (000)	Long-Term Supportable Space (SF) ^{1/}	Estimated Assessed Value (000) ^{2/}	Tax Revenues (000) ^{3/}	Impact On Current Tax Rate ^{4/}	Impact As Percent of Current Rate	Impact As Percent of Current Revenues
<u>Zero Percent Income Growth</u>							
North Haven ^{5/}	\$ 80,958	769,447	\$ 56,094	\$ 1,346	\$ (1.29)	(5.3%)	8.0%
New Haven	(8,370)	(98,471)	(5,170)	(384)	0.33	0.4%	(0.4%)
Wallingford	(1,046)	(12,306)	(646)	(17)	0.02	0.1%	(0.1%)
Hamden	(5,588)	(65,741)	(3,451)	(179)	0.21	--	(0.4%)
North Branford	(71)	(835)	(44)	(1)	0.01	--	--
East Haven	(713)	(8,388)	(440)	(16)	0.05	--	(0.1%)
Bethany	(48)	(565)	(29)	(1)	0.01	--	--
Woodbridge	(166)	(1,953)	(102)	(2)	0.01	--	--
Orange	(1,498)	(17,624)	(925)	(24)	0.06	0.2	(0.2%)
West Haven	(594)	(6,988)	(367)	(18)	0.03	0.1	(0.1%)
Branford	(832)	(9,788)	(514)	(11)	0.02	0.1	(0.1%)
Guilford	(499)	(5,871)	(308)	(13)	0.05	0.1	(0.1%)
Madison	(166)	(1,953)	(102)	(2)	0.01	--	--
Clinton	(144)	(1,694)	(89)	(2)	0.01	--	--
Total	\$ 61,223	537,270	\$ 43,907	\$ 676	\$ (0.20) ^{6/}	(0.5) ^{6/}	0.2%
<u>One Percent Income Growth</u>							
North Haven ^{5/}	\$ 82,394	786,341	\$ 56,981	\$ 1,367	\$ (1.32)	(5.5)	8.1%
New Haven	(5,396)	(63,483)	(3,332)	(248)	0.21	0.3	(0.3%)
Wallingford	(675)	(7,941)	(417)	(11)	0.01	--	(0.1%)
Hamden	(3,602)	(42,377)	(2,225)	(116)	0.13	0.3	(0.3%)
North Branford	(46)	(541)	(29)	(1)	--	--	--
East Haven	(460)	(5,412)	(284)	(10)	0.03	0.1	(0.1%)
Bethany	(31)	(365)	(19)	(1)	0.01	--	--
Woodbridge	(107)	(1,259)	(66)	(1)	--	--	--
Orange	(966)	(11,365)	(597)	(15)	0.04	0.2	(0.1%)
West Haven	(383)	(4,506)	(237)	(12)	0.02	--	--
Branford	(537)	(6,318)	(332)	(7)	0.01	--	(0.1%)
Guilford	(322)	(3,788)	(199)	(9)	0.03	0.1	(0.1%)
Madison	(107)	(1,259)	(66)	(2)	0.01	--	--
Clinton	(92)	(1,082)	(57)	(1)	0.01	--	--
Total	\$ 69,670	636,645	\$ 49,121	\$ 933	\$ (0.23) ^{6/}	(0.6) ^{6/}	0.3%

^{1/} Assumes a productivity factor of \$85.00 per square foot per year, except for the North Haven Mall (see Attachment C).

^{2/} Assumes a market value of assessable real and personal property of \$75.00 per square foot times the assessment ratio, which is 70 percent in all cases.

^{3/} At most recently stated mill rates (see following table).

^{4/} Assumes same tax revenues (see following table) would be raised on an assessment base adjusted by the change in assessed value.

^{5/} Represents net effects with the North Haven Mall.

^{6/} Weighted averages for the metro as a whole.

NOTE: Parentheses indicate negative values.

A dash in the last two columns designates a value of less than 0.05% or 0.0005.

BACKGROUND FISCAL DATA
NEW HAVEN - WEST HAVEN SMSA

1990

	<u>Total Assessed Valuation (000's)</u>	<u>Mil Rate (Tax Per Thousands \$ of Valuation)</u>	<u>Tax Revenues (000's)</u>
North Haven	\$ 705,401	\$24.00	\$ 16,929.6
New Haven	1,154,023	74.29	85,732.4
Wallingford	747,513	26.80	20,033.3
Hamden	863,680	51.98	44,894.1
North Branford	179,777	32.28	5,803.2
East Haven	348,435	36.00	12,543.7
Bethany	91,952	28.00	2,574.7
Woodbridge	288,423	21.377	6,165.6
Orange	396,823	25.50	10,119.0
West Haven	640,773	49.94	32,000.2
Branford	588,758	21.00	12,363.9
Guilford	283,662	43.73	12,404.5
Madison	383,232	24.00	9,197.6
Clinton	<u>247,036</u>	23.42	<u>5,785.6</u>
Total	\$6,919,488	\$39.97	\$276,547.4

SOURCE: Office of Policy and Management, State of Connecticut;
Gladstone Associates.

C. Employment Impacts

C. EMPLOYMENT IMPACTS

The North Haven Mall would generate a significant number of jobs in the New Haven region -- temporary jobs through the construction phase of the Mall and long-term, permanent positions associated with the operations of the Mall. Additionally, these jobs would result in a multiplier effect, whereby the infusion of an extra dollar into the regional economy creates activity in excess of that one dollar. Briefly:

- The construction phase of the Mall would require about 10,052 person months and generate on the order of \$21.8 million in wages. It is estimated that about 45% of these labor requirements would be filled by workers from within the New Haven Labor Market Area. This would result in an infusion of about \$9.8 million in new wages into the New Haven SMSA.
- Employment associated with the operation of the North Haven Mall is estimated at approximately 1960 jobs. Accounting for jobs which may be transferred from Sears and Penney's as well as sales jobs which may be lost in the SMSA but replaced at the Mall, Mall operations would create about 1400 new permanent positions in 1990.
- These new positions would result in an annual payroll of \$11.3 million in new wages.
- Approximately 1250 to 1300 of these new positions are expected to accrue to New Haven area residents. This would represent an annual infusion of \$9.1 million to \$9.5 million in new wages into the region.
- The multiplier effects of these new wages in the New Haven region would be a one-time effect of \$24.5 million resulting from construction wages and a more long term effect of about \$23 million per year as a result of net new positions associated with mall operations.

TOTAL LABOR AND WAGE REQUIREMENTS
NORTH HAVEN MALL CONSTRUCTION PROGRAM

Month	Person-Month Requirements			Total	Wages (\$000)
	Sitework	Building	Tenant Finishes		
1	60	--	--	60	\$ 130.2
2	60	--	--	60	\$ 130.2
3	60	--	--	60	\$ 130.2
4	60	--	--	60	\$ 130.2
5	60	--	--	60	\$ 130.2
6	60	--	--	60	\$ 130.2
7	37	122	--	159	\$ 345.0
8	37	127	--	164	\$ 355.9
9	37	135	--	172	\$ 373.2
10	37	149	--	186	\$ 403.6
11	37	175	--	212	\$ 460.0
12	37	251	--	288	\$ 625.0
13	95	327	--	422	\$ 915.7
14	95	321	--	416	\$ 902.7
15	95	320	--	415	\$ 900.6
16	95	320	--	415	\$ 900.6
17	95	321	--	416	\$ 902.7
18	95	320	--	415	\$ 900.6
19	--	320	--	320	\$ 694.4
20	--	321	--	321	\$ 696.6
21	--	320	--	320	\$ 694.4
22	--	314	--	314	\$ 681.4
23	--	292	--	292	\$ 633.6
24	--	271	--	271	\$ 588.1
25	--	255	--	255	\$ 553.4
26	--	207	--	207	\$ 449.2
27	--	181	--	181	\$ 392.8
28	--	117	--	117	\$ 253.9
29	--	67	330	397	\$ 861.5
30	--	47	330	377	\$ 818.1
31	--	--	528	528	\$ 1,145.7
32	--	--	528	528	\$ 1,145.7
33	--	--	528	528	\$ 1,145.7
34	--	--	528	528	\$ 1,145.7
35	--	--	528	528	\$ 1,145.7
Total	1,152	5,600	3,300	10,052	\$21,812.7

Source: Standard Industry Computer Model; Gladstone Associates.

1. Construction Employment

The exact number of jobs to be generated in the construction phase of the North Haven Mall would depend upon the final design of the anchors and mall shops. Estimates of construction employment levels have been made, however, using the following assumptions:

1. The total construction budget (excluding land acquisition and fees) is estimated at \$75 to \$80 million. This figure includes labor, materials and equipment, costs for site work, building construction and tenant finishes.
2. Gross wages per employee are estimated at \$12.49 per hour, given prevailing rates in the New Haven area (1980 dollars) and anticipated skill requirements.
3. The average person-month consists of 174 working hours.
4. The total labor requirements for the construction phase of the mall would be about 10,052 person-months. This estimate includes labor requirements for site work at 1,152 person-months; for building at 5,600 person-months; and for tenant finishes at 3,300 person-months. Labor requirements would vary over the course of the 36-month construction period with peak labor demand occurring from months 13 to 25 as well as in the last 7 months of construction.

Gross wages per person-month, given prevailing rates in the New Haven area and anticipated skill requirements, are estimated at \$2,170. Total wages to be generated, therefore, through the North Haven Mall construction program, are estimated at \$21.8 million over three years (in 1980 dollars).

CONSTRUCTION AND MINING EMPLOYMENT

SELECTED LABOR MARKET AREAS

1972 - 1980

Labor Market Area											Average Annual Change					
											1972 - 1976		1976 - 1980		1972 - 1980	
	1972	1973	1974	1975	1976	1977	1978	1979 ^{1/}	1980 ^{1/}		Number	Percent	Number	Percent	Number	Percent
New Haven	8,590	8,920	8,340	6,600	6,080	6,360	6,690	7,880	7,100		-628	-7.3	255	4.2	-186	-2.2
Bridgeport	5,830	6,590	5,800	4,510	4,520	4,500	5,320	5,500	4,400		-328	-5.6	-30	-0.7	-179	-3.1
Stamford	4,060	3,890	3,680	3,160	3,350	4,460	4,970	5,300	5,900		-178	-4.4	638	19.0	230	5.7
Waterbury	4,150	4,110	3,760	2,910	2,700	3,060	3,380	3,400	3,100		-363	-8.7	100	3.7	-131	-3.2
Hartford	16,240	17,210	15,920	12,100	10,500	11,170	12,050	14,000	13,000		-1,435	-8.8	625	6.0	-405	-2.5
Total	38,870	40,720	37,500	29,280	27,150	29,550	32,410	36,000	33,500		-2,930	-7.5	1,588	5.8	-671	-1.7

^{1/} Based on rounded estimates from the Connecticut Labor Department.

NOTE: These figures represent data for the month of June.

SOURCE: Connecticut Labor Department; Gladstone Associates.

The impact of the mall's construction phase on the New Haven regional economy will be related, in large measure, to the number of jobs filled from within the New Haven region.

The North Haven Mall site is within a one-hour drive of the major labor market areas in the state -- Bridgeport, Stamford, Waterbury, Hartford -- as well as the New Haven Labor Market Area itself. Total employment in these labor market areas has been increasing steadily since 1976, with average annual gains ranging from a low of 1.9 percent to a high of 5.1 percent.

Construction employment has, as one would expect, followed general economic trends. For example, between 1972 and 1976, each of the above-mentioned labor market areas lost substantial numbers of construction jobs. The number of construction jobs lost in these five labor market areas during this period totaled 11,720 jobs. The largest losses occurred in the New Haven and Hartford Labor Market areas which lost a total of 2,510 and 5,740 construction jobs respectively. As economic conditions began to improve, the number of construction employment also began to increase. Between 1976 and 1980, with one nominal exception each of the labor market areas exhibited increases in construction employment. The greatest increases occurred in the Hartford and Stamford Labor Market Areas. Increases of 1,020 construction jobs in the New Haven Labor Market Area and 2,500 jobs in the Hartford Labor Market Area between 1976 and 1980 were not high enough to offset previous losses.

Construction employment in the New Haven Labor Market Area (as reported by the Connecticut Department of Labor) has consistently represented about 22 percent of the total construction employment in the five labor market areas mentioned above -- New Haven, Bridgeport, Stamford, Waterbury and Hartford. Hence, at minimum, 22 percent of the labor requirements generated by the construction of North Haven Mall are projected to be filled by New Haven area residents.

Since the North Haven Mall site is located within the New Haven labor market area, however, it is likely that the number of jobs filled by New Haven area residents would greatly exceed this 22 percent estimate. Given the significant travel and time cost which might be saved through employment of area workers, it is estimated that more on the order of 45 percent of the construction phase labor requirements would be filled by workers from the New Haven region -- representing an infusion of about \$9.8 million (in 1980 dollars) in new wages into the New Haven labor market area. This figure represents 0.4 percent of all wages paid out in the region during 1978.

Of the remaining 5,525 person-months required for the construction phase of the North Haven Mall, it is projected that approximately 75 percent of these positions (slightly more than 4,100 person-months or about \$9 million in wages) would go to workers in the Bridgeport, Stamford, Waterbury and Hartford labor market areas.

It must be recognized that the demand for labor has been expressed in person-months and that this is not equivalent to the actual number of jobs that would be created during the construction phase of the North Haven Mall. Peak labor demands would likely require the employment of 400 to 500 individuals (with about 200 of these projected to come

POTENTIAL MONTHLY PAYROLL AND EMPLOYMENT
 LOCAL LABOR FORCE 1/
 NORTH HAVEN MALL CONSTRUCTION PROGRAM

<u>Month</u>	<u>Employment</u> <u>(person-months)</u>	<u>Payroll</u> <u>(\$000)</u>
1	27	\$ 58.6
2	27	\$ 58.6
3	27	\$ 58.6
4	27	\$ 58.6
5	27	\$ 58.6
6	27	\$ 58.6
7	72	\$ 156.2
8	74	\$ 160.6
9	77	\$ 167.1
10	84	\$ 182.3
11	95	\$ 206.2
12	130	\$ 282.1
13	190	\$ 412.3
14	187	\$ 405.8
15	187	\$ 405.8
16	187	\$ 405.8
17	187	\$ 405.8
18	187	\$ 405.8
19	144	\$ 312.5
20	144	\$ 312.5
21	144	\$ 312.5
22	142	\$ 308.1
23	131	\$ 284.3
24	122	\$ 264.7
25	115	\$ 249.6
26	93	\$ 201.8
27	81	\$ 175.8
28	53	\$ 115.0
29	179	\$ 388.4
30	170	\$ 368.9
31	238	\$ 516.4
32	238	\$ 516.4
33	238	\$ 516.4
34	238	\$ 516.4
35	238	\$ 516.4
Total	4,527	\$9,823.5

1/ Represent jobs and payroll accruing to construction workers residing within the New Haven-West Haven SMSA.

Source: Gladstone Associates

from the New Haven labor market area). During the slacker periods, however, the services of some of these individuals would not be required, resulting in the continual employment of approximately 100 of the original 500. Recognizing this, it appears that the projected demand for New Haven area construction workers can be readily met from within the existing labor force. Information from the Connecticut Department of Labor indicates that as of June, 1980, 1,350 individuals were actively seeking construction-related employment. At such levels, the mall construction labor requirements could be accommodated from within the New Haven labor market area.

Multiplier Effects of the Construction Phase. Because of the trading interrelationships among various economic units, both inside and outside the local economy, the initial expenditure of a dollar ordinarily creates economic activity in excess of that one dollar. In other words, an expenditure in the local economy from an outside source becomes income to some economic unit (business or individual) within the local economy. This economic unit, in turn, spends this income for a second level of goods and services, some of it locally and some of it non-locally which, again, takes the form of income to a third level of economic unit which, in turn, expends this income, etc.

Such a process is known as the "multiplier effect", and is measured by applicable multiplier rates -- a quantitative measure of the number of times an initial expenditure is "respent" within the local economy.

Appropriate multiplier rates vary from one economy to another and even from one industry, or type of economic activity, to another within the same local economy. A model, called the "input-output analysis" determines these rates but is available for only a very small number of regions in the United States. Such a model is not available for

the New Haven region and therefore precise multiplier rates cannot be obtained.

Nevertheless, reasonable estimates can be made for the appropriate multiplier rate. Multipliers can range from between 2.0 and 3.5. For purposes of this analysis, a conservative multiplier of 2.5 has been applied against projected wages from the North Haven Mall construction phase. Thus, the injection of an additional \$9.8 million in wages into the New Haven region will generate about \$24.5 million in economic activity.

It should be noted that although this impact is sizable, construction jobs are temporary and therefore this impact, essentially, will be a one-time effect over roughly a three-year period.

2. Mall Operations Employment

The number of jobs generated by operation of the North Haven Mall will depend on the hiring practices and needs of the anchors and individual mall shops. Based on conversations with retail management personnel, estimates of operations employment have been made incorporating the following assumptions:

1. The employment and wages projected below are based on full operational needs.
2. On average, total selling and support staff requirements for the anchor stores will be as follows: 0.73 full-time employees per 1,000 square feet; 1.14 part-time employees per 1,000 square feet; and, 0.15 management per 1,000 per square feet. For the individual mall shops, employment needs are estimated at approximately 1.5 employees per 1,000 square feet. Total mall management staff is estimated at approximately 30 people.

3. Gross hourly wages per employee were estimated from salary ranges published by the Connecticut Department of Labor and are estimated as follows: sales and non-sales personnel at \$4.00 per hour; management at \$20.00 per hour; and mall management personnel at an average wage of \$4.79 per hour. Total annual wages paid to mall personnel will be approximately \$25.16 million.
4. Full-time and part-time employment are defined at 37.5 and 20.0 hours per week, respectively.
5. Mall operations will require about 1,960 employees -- 1,160 full-time personnel and 770 part-time personnel, for a full-time employment equivalent of 1,600 jobs.

Total employment associated with the operation of the anchor stores, the mall shops and the management of the mall itself is estimated at approximately 1,960 jobs.

Due to potential sales transfers to the North Haven Mall from sales locations elsewhere within the SMSA, it is projected that in 1990, under an improbable "worst case" scenario (detailed more fully in Section IIB Fiscal Impacts) approximately 280,000 s.f. of retail space may close down due to insufficient sales volume. Approximately 450 jobs could, therefore, be lost through these closings. As a result, all the positions created at the North Haven Mall might not represent new jobs and new wages into the region.

-- Net new jobs (on a full-time equivalent basis) resulting from development of the North Haven Mall are projected at a minimum 1,150 positions in 1990. These positions will generate approximately \$9.3 million in wages.

Part-Time Employment: About 466 to 523 net new part-time positions are expected to be created at the North Haven Mall. Based on the nature

of these jobs and the typical experience of retailers, all of these positions will likely be filled by individuals currently residing within the New Haven labor market area or within those fringe towns such as Cheshire, Meriden, Middlefield and so forth. Typically, these part-time positions are filled by individuals wanting to supplement income from other part-time or full-time jobs. These new part-time positions are expected to generate about \$2.0 to \$2.2 million in annual wages.

Full-Time Employment: Non-management full-time employment is projected at 700 to 787 net new positions. The nature of the job and the average salary for sales personnel and other non-management positions are judged not high enough to induce a person to relocate or travel in excess of 30 to 40 minutes from his or her place of residence. It is conservatively projected, therefore, that the majority of full-time positions -- 85 to 90 percent or roughly 595 to 700 jobs -- would be drawn from the New Haven SMSA labor force. Available skill levels in the New Haven labor market area and fringe area towns are adequate to fill this demand.

Employment in the wholesale and retail trade sectors in the New Haven labor market area has increased steadily since the 1975 recessionary period. Between 1976 and 1980 approximately 1,080 jobs have been added annually in this sector for an average annual growth rate of 3.0 percent. During this time, the trade sector was second only to the service sector in growth.

Recent information from the Connecticut Department of Labor for June, 1980, indicates that at the present time, sales positions are being sought by approximately 650 individuals and support-type positions (clerical, bookkeeping, stock clerks, etc.) by an additional 2,639 individuals.

Further, experience has shown that the potential labor pool is greater than that implied by the State Labor Department figures, which do not reflect job seekers not using the services of the State Job Office. These figures also do not reflect the availability of individuals not currently in the labor force, but who would consider employment if a convenient opportunity arose -- i.e., homemakers, students, etc.

Additionally, the location of the North Haven Mall is such that workers are also likely to be drawn from certain towns on the fringe areas of the SMSA (Cheshire, Meriden, etc.) -- towns within a 20-minute driving time. The labor resources of these individuals are not included in information published for the New Haven Labor Market Area.

Management: Based on conversations with management of the intended anchor stores, it is projected that about 40 percent of the management positions may be filled by individuals who will relocate into the New Haven region. Information published by the Connecticut Department of Labor indicates that the remaining 60 percent of management positions could be easily filled from within the existing labor force. For June, 1980, there were approximately 129 individuals seeking management positions in the trade sector. These 34-38 new management positions will generate annual wages on the order of \$1.3-\$1.5 million.

New Haven SMSA Capture: Net new employment opportunities which will accrue to New Haven Labor Market Area residents will range between 1,120 to 1,300 positions. These new jobs will represent an increase of between 2.8 and 3.2 percent over existing employment in the wholesale and retail trade sectors, and an increase in total regional employment of between 0.6 and 0.7 percent. The subsequent wages generated by these new positions will be on the order of \$8.2 million to \$9.5 million and

will increase the total wages paid in the New Haven labor market area by about 0.4 percent. The following table details total operational employment required by the North Haven Mall as well as those positions projected to accrue to New Haven area residents.

Multiplier Effects. Multiplier effects have already been explained in the preceding section entitled Construction Employment. A multiplier of 2.5 has also been used to estimate the total economic benefits that mall operational employment will have on the local economy. Based upon wage projections of \$9.1 million to \$9.5 million to be gained by New Haven area residents, total economic benefits are estimated at approximately \$22.8 to \$23.8 million per year. Assuming average wages of \$15,000 per year and further assuming that 50 percent of the cost of these goods and services demanded (i.e., the \$22.8 and \$23.8 million in economic activity) is for labor, then secondary employment impacts are estimated at 760 to 790 jobs. These are permanent on-going jobs, stated on a full time equivalent basis.

NEW EMPLOYMENT OPPORTUNITIES ^{1/}
 NORTH HAVEN MALL OPERATIONS PROGRAM
 1985 (0% Annual Income Growth)

<u>Position</u>	<u>Total</u>		<u>New Haven SMSA Capture</u>			
	<u>Jobs</u>	<u>Annual Payroll (Millions)</u>	<u>@ 85%</u>	<u>Annual Payroll (Millions)</u>	<u>@ 90%</u>	<u>Annual Payroll (Millions)</u>
<u>Selling</u>						
Full Time	574	\$ 4.5	488	\$ 3.8	517	\$ 4.1
Part Time ^{2/}	337	\$ 1.4	337	\$ 1.4	337	\$ 1.4
Subtotal	911	\$ 5.9	825	\$ 5.2	854	\$ 5.5
<u>Support Personnel</u>						
Full Time	99	\$ 0.7	84	\$ 0.6	89	\$ 0.6
Part Time ^{2/}	110	\$ 0.5	110	\$ 0.5	110	\$ 0.5
Subtotal	209	\$ 1.2	194	\$ 1.1	199	\$ 1.1
<u>Management (Full Time) ^{3/}</u>	57	\$ 2.2	33	\$ 1.3	33	\$ 1.3
<u>Mall Management (Full Time) ^{3/}</u>	30	\$ 0.3	26	\$ 0.2	27	\$ 0.3
Total	1,207	\$ 9.6	1,078	\$ 7.8	1,113	\$ 8.2

^{1/} Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

^{2/} Assumes all Part Time positions will be filled from within the SMSA.

^{3/} Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (includes clerical positions).

Source: Gladstone Associates

NEW EMPLOYMENT OPPORTUNITIES ^{1/}
NORTH HAVEN MALL OPERATIONS PROGRAM
1990 (0% Annual Income Growth)

Position	New Haven SMSA Capture					
	Total		@ 85%		@ 90%	
	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)
<u>Selling</u>						
Full Time	597	\$ 4.7	507	\$ 4.0	537	\$ 4.2
Part Time ^{2/}	351	\$ 1.5	351	\$ 1.5	351	\$ 1.5
Subtotal	948	\$ 6.2	858	\$ 5.5	888	\$ 5.7
<u>Support Personnel</u>						
Full Time	103	\$ 0.8	88	\$ 0.7	93	\$ 0.7
Part Time ^{2/}	115	\$ 0.5	115	\$ 0.5	115	\$ 0.5
Subtotal	218	\$ 1.3	203	\$ 1.2	208	\$ 1.5
<u>Management (Full Time) ^{3/}</u>	60	\$ 2.3	34	\$ 1.3	34	\$ 1.3
<u>Mall Management (Full Time) ^{3/}</u>	30	\$ 0.3	26	\$ 0.2	27	\$ 0.3
Total	1,256	\$ 10.1	1,121	\$ 8.2	1,064	\$ 8.8

^{1/} Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

^{2/} Assumes all Part Time positions will be filled from within the SMSA.

^{3/} Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (including clerical positions).

Source: Gladstone Associates

NEW EMPLOYMENT OPPORTUNITIES ^{1/}
 NORTH HAVEN MALL OPERATIONS PROGRAM
 1985 (1% Annual Income Growth)

Position	Total		New Haven SMSA Capture			
	Jobs	Annual Payroll (Millions)	@ 85%		@ 90%	
			Jobs	Annual Payroll (Millions)	Jobs	Annual Payroll (Millions)
<u>Selling</u>						
Full Time	616	\$ 4.8	524	\$ 4.1	554	\$ 4.3
Part Time ^{2/}	361	\$ 1.5	361	\$ 1.5	361	\$ 1.5
Subtotal	977	\$ 6.3	885	\$ 5.6	915	\$ 5.8
<u>Support Personnel</u>						
Full Time	106	\$ 0.8	90	\$ 0.7	95	\$ 0.7
Part Time ^{2/}	119	\$ 0.5	119	\$ 0.5	119	\$ 0.5
Subtotal	225	\$ 1.3	209	\$ 1.2	214	\$ 1.2
<u>Management (Full Time) ^{3/}</u>	62	\$ 2.4	35	\$ 1.4	35	\$ 1.4
<u>Mall Management (Full Time) ^{3/}</u>	30	\$ 0.3	26	\$ 0.2	27	\$ 0.3
Total	1,294	\$ 10.3	1,155	\$ 8.4	1,191	\$ 8.7

^{1/} Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

^{2/} Assumes all Part Time positions will be filled from within the SMSA.

^{3/} Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (includes clerical positions).

Source: Gladstone Associates

NEW EMPLOYMENT OPPORTUNITIES ^{1/}
 NORTH HAVEN MALL OPERATIONS PROGRAM
 1990 (1% Annual Income Growth)

<u>Position</u>	<u>Total</u>		<u>New Haven SMSA Capture</u>			
	<u>Jobs</u>	<u>Annual Payroll (Millions)</u>	<u>@ 85%</u>	<u>Annual Payroll (Millions)</u>	<u>@ 90%</u>	<u>Annual Payroll (Millions)</u>
<u>Selling</u>						
Full Time	671	\$ 5.2	570	\$ 4.4	604	\$ 4.7
Part Time ^{2/}	394	\$ 1.6	394	\$ 1.6	394	\$ 1.6
Subtotal	1,065	\$ 6.8	964	\$ 6.0	998	\$ 6.3
<u>Support Personnel</u>						
Full Time	116	\$ 0.9	99	\$ 0.8	104	\$ 0.8
Part Time ^{2/}	129	\$ 0.6	129	\$ 0.6	129	\$ 0.6
Subtotal	245	\$ 1.5	228	\$ 1.4	233	\$ 1.4
<u>Management (Full Time) ^{3/}</u>	68	\$ 2.7	38	\$ 1.5	38	\$ 1.5
<u>Mall Management (Full Time) ^{3/}</u>	30	\$ 0.3	26	\$ 0.2	27	\$ 0.3
Total	1,408	\$ 11.3	1,256	\$ 9.1	1,296	\$ 9.5

^{1/} Does not include personnel expected to be transferred from existing Sears' and Penney's operations. Also does not include positions projected to be lost as a result of transfer sales from SMSA establishments to the North Haven Mall.

^{2/} Assumes all Part Time positions will be filled from within the SMSA.

^{3/} Capture rate estimated at 57% for Management positions and at 87% and 90% for Mall Management positions (includes clerical positions).

Source: Gladstone Associates

TOTAL WAGES
SELECTED LABOR MARKET AREAS
JUNE 1981
(In Thousands of Current Dollars)

<u>Labor Market Area</u>	<u>Manufacturing</u>	<u>Non- Manufacturing</u>	<u>Total</u>
New Haven	769,510	1,666,662	2,436,172
Bridgeport	1,342,623	1,146,002	2,488,625
Stamford	898,590	1,354,144	2,252,734
Waterbury	564,889	507,468	1,072,357
Hartford	<u>2,144,699</u>	<u>3,696,140</u>	<u>5,840,839</u>
Total	5,720,311	8,370,416	14,090,727

Source: Connecticut Labor Department; Gladstone Associates.

D. Land Use Impacts

D. LAND USE IMPACTS

Development of a major regional mall may carry with it the potential for altering land use patterns in its immediate area. For example, as a significant generator of "consumer traffic," such a facility may well prove an incentive to development of additional, ancillary retail space that would not otherwise take place.

This report section evaluates those potential land use impacts related to the proposed North Haven Mall. Specifically, the following issues are addressed with regard to secondary development:

- What type and magnitude of space might be developed as a direct result of the mall given the retail traffic flow associated with the mall, an improved "sense of place," or identity for the area, and, possibly, improved infrastructure in the area?

1. Secondary Development

Secondary development has been defined as any residential, commercial, and/or industrial development which is likely to occur in the reasonable foreseeable future as a result of the construction and operation of the North Haven Mall. That is, if the Mall were not constructed, the projected secondary development would not likely take place.

To estimate the potential spin-off effects of the mall, in terms of additional development, the opportunities and constraints for various land uses were examined in several ways.

- First, regional support for industrial, office, commercial and residential development was examined.

- North Haven's historical capture rates for such development were also analyzed.
- The competitive advantage and "sense of place" of the area which might be created as a result of the operation of the North Haven Mall was also evaluated.
- Inspections of several major shopping centers in Connecticut were undertaken. The purpose was to determine the extent to which the location and operation of a particular shopping center may have influenced additional development.

The extent to which the corridor surrounding the North Haven Mall site (Washington Avenue, Valley Service Road and Mall Drive) would attract additional development was also analyzed and would depend on several factors:

- ability to access Mall-generated traffic;
- current land use and zoning;
- barriers to development;
- site availability; and
- demand.

Factors Influencing Development

In analyzing the potential for secondary development as a result of North Haven Mall operations, the land use patterns around several other shopping centers were studied. The extent to which the operations of these centers may or may not have contributed to secondary development was found to be also influenced by other factors. These issues are highlighted in the brief descriptions of the commercial activity surrounding four major retail centers which appear immediately below. Following those brief summaries is an analysis of how those issues might diminish or enhance secondary development associated with mall operations.

Other Regional Shopping Centers

- Meriden Square. Due to the scarcity of commercially-zoned land close to Meriden Square, it appears that there has been no new commercial development associated with this mall's operations. Built in 1971, Meriden Square contains 546,000 square feet of retail space and is anchored by G. Fox and J.C. Penney's. It is located on Lewis Avenue off Route 66 West. It is bounded by Route 66 on the south and by significant single family residential development on the remaining three edges. The lack of available sites as well as the extensive existing residential development appear primarily responsible for constraining further commercial development in the area.
- West Farms Mall. The West Farms Mall, anchored by G. Fox, Sage-Allen and J.C. Penney's, was opened in 1974 and contains slightly more than 1 million square feet of space. It is located at the Corbin's Corner exit off I-84. The Corbin's Corner Parkade, built in 1962, is located opposite the Mall and includes Sears, Stop & Shop and a number of small retail establishments.

The West Hartford-Farmington area experienced considerable growth in the 1960's and early 1970's. Development of the Mall here was likely in response to this growth and the continued orientation of growth away from the City of Hartford itself. The locations of the West Farms Mall, in turn, established the area as a retail concentration, contributing to the area's attractiveness and convenience. The only significant development to date has been the recent construction of two small centers about one-quarter to one-half mile from the mall, totaling about 200,00 s.f.

The first of these is a community center planned for 166,150 square feet with on-site parking for 900 cars. It would be anchored by a K-Mart and a Waldbaum's Food Mart and contain several smaller shops. The other center is more of a neighborhood center and would contain a total of about 30,000 s.f. It is expected to include an auto parts type of store, a bank, a restaurant, a hair salon, a finance company, a woman's clothing store and a shoe store.

It is important to note these have been the only significant developments to date -- 200,000 s.f. built within six years after the opening of the mall.

- Trumbull Shopping Park. Similar to Meriden Square, the operation of the Trumbull Shopping Park does not appear to have had any spin-off effects in terms of additional commercial development in the area surrounding the shopping center site. The mall itself is anchored by G. Fox and Read's and is located just off the Merritt Parkway. Although the easy access from the Parkway to the Mall makes the surrounding area attractive for commercial use, actual commercial development has been constrained by the lack of sites and by the predominance of the surrounding residential uses.
- Magic Mile. Magic Mile is the name by which the commercial strip along Dixwell Avenue in Hamden is more commonly known. This strip is dominated by three large shopping centers -- Hamden Mart, Hamden Plaza and the Caldor Shopping Center -- totaling about 1 million square feet. There are also a large number of smaller retailing establishments: restaurants, gas stations, fast food chains, etc. The area is convenience-oriented, the major stores being large grocery chains and discount department stores.

Hamden Mart and Hamden Plaza were built in the late 1950's and early 1960's. The Sears store (located across the street from these centers) is over 20 years old as well. Access to this commercial district is excellent from the Wilbur Cross Parkway. Dixwell Avenue is also a main traffic route that runs between New Haven and Hamden and north. It would appear that the commercial growth here began as a response to the population increases in the New Haven suburbs. The fact that Dixwell Avenue is a major artery and that the area has excellent access from the Parkway also contributed to the attractiveness of this particular area. As the Magic Mile strip became a viable, identifiable retail concentration, business was further attracted to the area.

Some apartment units have been constructed on the hill behind the shopping centers. This development cannot be attributed to any one factor, but is likely the result of good access, residential demand, zoning and proximity to an identifiable commercial node.

Ability to Access Mall-Generated Traffic. The projections of Mall-generated traffic have indicated that the two major access routes to the Mall would be Valley Service Road and Mall Drive. Specifically:

- 55 percent of the Mall-generated traffic would arrive via Valley Service Road. Of these, the majority would reach Valley Service Road from the west (via Wilbur Cross Parkway, State Street, Bishop Street, etc.), and the remaining traffic would arrive from the east -- via I-91 and Route 22.
- Mall Drive would be the primary access route for 45 percent of all Mall-generated traffic. The majority of the cars would be coming off I-91 with some accessing Mall Drive directly from Washington Avenue.

The increased traffic along these routes would increase the visibility and attractiveness of sites along Washington Avenue, Mall Drive and Valley Service Road for commercial uses.

Current Zoning and Land Use. The North Haven Mall site, as well as those sites to the north and south along Valley Service Road are zoned light industrial. This includes various types of light manufacturing, research facilities, as well as shopping centers, restaurants, hotels and so forth. The corridor on the east side of Washington Avenue is zoned for general commercial and the west side for both commercial and light industrial. The commercial zone permits most of the uses allowed in the light industrial zone with the exception of warehousing and manufacturing establishments.

The land use in this area reflects the zoning restrictions placed upon it. The North Haven Mall site, as well as that land south to Route 22, is predominantly vacant. To the north of the site is the Pratt and Whitney complex and some vacant land. The Washington Avenue corridor is commercially-oriented with several community shopping centers, professional offices, banks and an assortment of fast food restaurants.

Barriers to Development. There are several natural and man-made barriers which are likely to constrain additional development in the vicinity of the North Haven Mall. Specifically, the channel encroachment lines would likely form the western boundary of any development

which might take place along Valley Service Road. Development along the western portion of Valley Service Road would be further contained by the Pratt and Whitney complex to the north and by the I-91 ramps and Route 22 bridge to the south.

On the eastern side of Valley Service Road, development would be constrained by I-91 and the railroad tracks to the east and by the channel encroachment line to some degree along the south.

Site Availability. One of the critical factors affecting induced development opportunities is the availability of feasible sites. Given its present commercial character, it would appear that Washington Avenue would be a prime location for additional commercial development which might occur as a result of the North Haven Mall. At the present time, however, there appears to be a lack of vacant sites which might accommodate any large scale office or retail development. There may be an opportunity, however, for modest expansion of the existing community shopping centers as well as better merchandising of some of the underutilized establishments.

The only major vacant parcels in the vicinity of the North Haven Mall site are along Valley Service Road. This area, given the projected traffic volumes and current land use and zoning, would be the area best suited to any modest scale commercial development.

Demand. The extent to which the North Haven Mall would act as a catalyst for additional development would depend in large part on not only regional demand for a particular service, but also on North Haven's historical capture rates for particular types of development.

- Office. As a result of continuing growth in the office-using employment sectors (finance, services, etc.), demand for office space is projected at 120,000 s.f. annually over the next 10 years. Based on historical capture rates it was estimated that the town of North Haven might capture 5 percent to 10 percent of this regional market, or 60,000 to 120,000 s.f. over the next ten years. The North Haven Mall, however, would help to create an identifiable commercial node, enhancing the visibility and attractiveness of the surrounding sites. As a result, it is estimated that North Haven might capture an additional 50,000 s.f. of office space.
- Retail. The demand for retail services is discussed fully in Section IIA. Any induced retail development which may occur would likely take place on sites close to the North Haven Mall. This development would occur less directly as a function of demand than of the increased attractiveness of the area as a retailing location. The increased, easily accessible traffic (generated from both the Mall and the Washington Avenue establishments), the identification of the area as a retailing node, as well as the area's convenient access to major highways are factors which would influence retailers' locational decisions.
- Residential. It was projected in Section IIB, Employment, that about 40 management positions might be filled by individuals currently residing outside the New Haven SMSA. Assuming that all of these employees and their families relocate to the area, it is likely that a significant number would wish to live fairly close to their place of work. It is projected, therefore, that approximately 30 percent, or 12 families, would seek residence in the town of North Haven. The remaining 28 families are projected to relocate in the various cities and towns throughout the New Haven region.

Opportunities for Secondary Commercial Development

The brief summaries above point out the fact that the operation of a major shopping center would not, in and of itself, cause additional commercial (office or retail) or residential development to occur. Those factors which attract a regional shopping center to a particular

location are also attractive to other retail and office uses as well -- access, visibility, availability of land, proximity to population centers and so forth. Briefly,

- In the cases of Meriden Square and Trumbull Shopping Park, although access is good, additional commercial development has been inhibited by lack of available land and the extent of surrounding residential development.
- The development of Magic Mile appears to have been the result of uncontrolled, unplanned commercial growth which occurred over a long period of time. Growth probably became concentrated here because of access to major highways, the availability of sites, the growth of suburban towns and the gradual "snowballing" and massing of commercial establishments.
- With regard to West Farms Mall, secondary development cannot be attributed to the operations of West Farms itself, but to the combined influence of this center with the Corbins Corner Parkade, the level of traffic generated by these two centers, visibility and access to I-84 and the location of major population centers. Clearly, when all these factors are at play in one location, the potential for spin-off development opportunities are enhanced.

The conditions surrounding the North Haven Mall site are similar to that of the West Farms Mall and Magic Mile described above. As such, it is judged that the North Haven Mall would encourage additional commercial development for the following reasons:

- The Washington Avenue area is an established commercial corridor. The operation of the North Haven Mall would further contribute to this area's identification as a major retail node.
- The area has good access from both the Wilbur Cross Parkway and I-91.
- The demand for additional personal services and convenience retail services in this area may increase as a result of increased consumer traffic into the area.

- Population growth continues to be concentrated in the suburban areas of the New Haven SMSA.

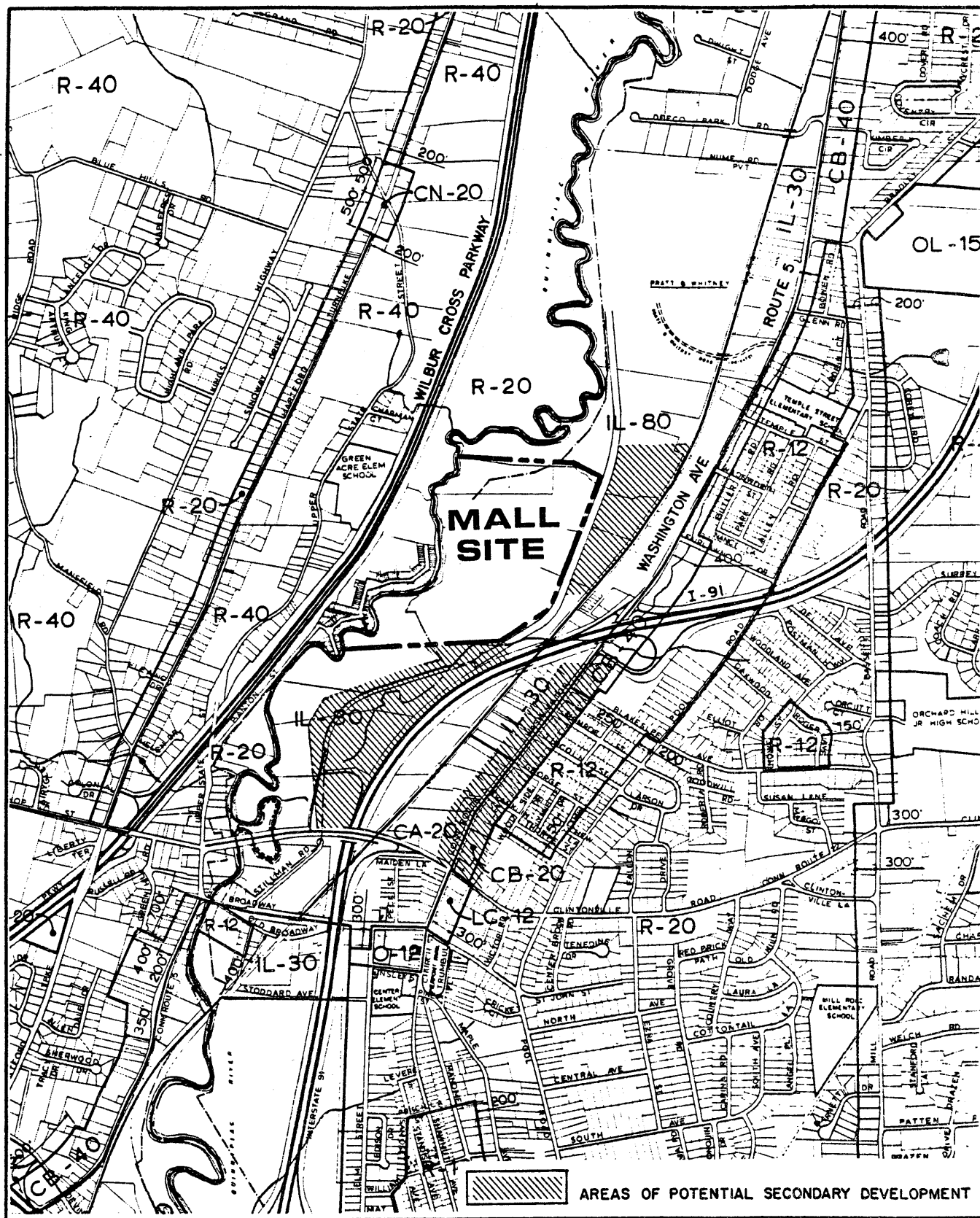
It is projected that any additional commercial development is likely to take place along Valley Service Road and along Washington Avenue. Due to density of existing commercial development and the lack of sites of adequate size, however, development along Washington Avenue is likely to be limited to some modest expansion of the existing centers and better utilization of vacant and underutilized space.

- Retail. It is likely that some of the secondary development associated with mall operations would be in the form of new retail space. This development would be reinforced by the existing commercial character of the area. It is likely that retail development might occur on Washington Avenue on infill sites or as expansions of existing centers. Additional retail development might also take place on available sites along Valley Service Road.
- Office. The provision of additional shopping and dining opportunities would enhance the attractiveness of this area for small scale office development.
- Timing. Approximately 60 acres of land are potentially available for secondary development along Valley Service Road. It is reasonable to expect that secondary development may not occur until the mall has been successfully operating for 1 to 2 years. Additionally, the nature of the soils on some of these sites may require additional costs and a longer construction period. As such, it is judged that 40% of the available land might be developed within the first 10 years following the mall opening with the remaining land being developed within the second ten year period.

In addition, the extent of secondary development can be limited by the town of North Haven through the planning process and through zoning controls.

Opportunities for Induced Residential Development. The North Haven Mall would induce residential development only to the extent that people who may be working in the Mall and who are currently living outside the SMSA would relocate to cities/towns within the New Haven region. As mentioned previously, it is estimated that about 40 management positions would be filled by persons currently residing outside the SMSA. Due to the time, costs and inconveniences which may be involved in commuting, all of these individuals and their families are projected to relocate to New Haven SMSA locations.

- Of these 40 families, it is judged that 30 percent, or 12 families, would relocate to the town of North Haven. This additional development can be accommodated within the existing residential sections of the town.
- The remaining 28 families are projected to relocate in the various cities and town within the New Haven region.
- The salaries for mall sales and support personnel are not judged high enough to attract individuals from outside the SMSA to move here for purposes of working at the mall.
- The construction phase of the mall would not result in additional residential development. The construction jobs are not permanent and are expected to be drawn from a commuting radius of approximately a 1- to 1½-hour drive.



NORTH HAVEN MALL

VALLEY SERVICE ROAD

NORTH HAVEN, CONNECTICUT

POTENTIAL SECONDARY

DEVELOPMENT

NORTH HAVEN



E. Cumulative Impacts

E. CUMULATIVE IMPACTS

The outlook for shoppers goods sales in the New Haven metropolitan area has been projected under both a baseline supply condition and the incremental supply condition of the North Haven Mall. These have been detailed in the preceding sections.

There are several proposals for possible additions of retail space devoted primarily to shoppers goods in and around the North Haven Mall trade area. Only one of these proposals -- the refurbishment and addition of 20,000 square feet of retail space at the Connecticut Post Shopping Center in Milford -- has been partially implemented. None of the others are likely to be developed in the reasonably foreseeable future for a variety of reasons, including local zoning controls and approvals, lack of access and unavailability of critical utility services. In addition, the development of the North Haven Mall is likely to reduce the probability of implementation of the other proposals. (See "Retail Project Proposals" further below in this section for a discussion of these proposals.)

The aggregation of the discrete impacts that Connecticut Post and the North Haven Mall will exert on SMSA sales destinations has been defined as "cumulative impacts." The projected impacts of the expanded Connecticut Post facility, presented below, are in addition to the projected impacts of the North Haven Mall, discussed previously.

Further, aside from identifiable discrete projects, there may be new shoppers goods retail space added in new neighborhood or community centers dispersed over several locations (as occurred during the 1970s). The cumulative impacts of this type of development are also assessed here.

1. Connecticut Post Shopping Center

The Connecticut Post Shopping Center contains about 800,000 square feet of retail space, approximately 600,000 square feet of which is estimated to be in shoppers goods space. In 1977 total retail sales for the center (reported by the Census and adjusted by Gladstone Associates to reflect state sales tax) were estimated at \$34.1 million, down from \$61.7 million in 1972. A significant portion of this sales decline is attributable to the decrease in shoppers goods sales from \$41.0 million in 1972 to \$18.9 million in 1977. The loss implies a reduction in shoppers goods space productivity from \$68 in 1972 to \$32 in 1977. Overall productivity for the total center in 1977 is estimated at \$43 per square foot. These estimates are well below industry standard which range from \$85 to \$100 per square foot.

Using Connecticut Department of Transportation data (detailed in the sales flows matrix and the Methodology section -- see Section III(D)(3)), it is estimated that 20.1 percent of the center's 1977 shoppers goods sales, \$3.8 million, flowed from residents of the New Haven metropolitan area to Connecticut Post in Milford, which is not within the SMSA.

Under static supply conditions, 1990 Connecticut Post shoppers goods sales originating from New Haven metro households were projected at \$3.9 million, assuming zero percent income growth. With the proposed North Haven Mall, it is estimated that approximately 35 percent -- or \$1.4 million -- of these sales would be recaptured by the metro. Therefore, under the incremental supply condition (with the North Haven Mall), Connecticut Post's draw (absent any remerchandising or expansion) from the New Haven metropolitan area in 1990 under zero percent income growth

is estimated at \$2.5 million. (Under the one percent income growth assumption, this draw would be \$2.8 million.)

Connecticut Post Shopping Center -- Expansion

Connecticut Post has recently enclosed and partially remerchandised the existing center, and changed the internal configuration to provide an additional 20,000 square feet of retail space. For purposes of this analysis, it is conservatively assumed that the addition consists primarily of shoppers goods space. Such actions have likely improved the center's currently low productivity level. While it is not possible to precisely quantify this potential increase it is assumed, in order to provide some quantitative indication of potential impacts, that the center's productivity level might go to \$45 per square foot by 1985 (a 40 percent increase over the most recently reported level), generating \$8.7 million in new sales, and to \$50 per square foot by 1990 (a 60 percent increase), resulting in an additional \$11.8 million (again, over 1977 levels) in shoppers goods sales for the center. (It should be noted that these improved sales volumes and productivity levels are in 1977 constant dollar terms.)

POTENTIAL INCREASED SHOPPERS GOODS SALES^{1/}

CONNECTICUT POST

(In millions of 1977 constant dollars)

	<u>1985^{2/}</u>	<u>1990^{3/}</u>
Refurbishing of Existing Space	\$7.8	\$10.8
New Space	\$0.9	\$ 1.0
Total	\$8.7	\$11.8

^{1/} Assumes remerchandising and a 20,000 s.f. addition.

^{2/} At an increase of \$13 per square foot.

^{3/} At an increase of \$18 per square foot.

Source: Gladstone Associates.

Impacts of Connecticut Post Expansion

As noted above, 20.1 percent of the 1977 shoppers goods sales at Connecticut Post originated from individuals residing within the New Haven SMSA. Given the relatively small increase in projected new space for the center, it has been assumed that shopping patterns will remain relatively constant and that the existing trade area for the center will remain essentially unchanged. Hence, it is estimated that 20.1 percent of the increase in sales for Connecticut Post will be generated by New Haven SMSA residents. This potential additional "capture" of metropolitan area expenditures would thus amount to \$1.7 million in 1985 and \$2.4 million 1990.

Not all these expenditures, however, will represent diversions from SMSA sales destinations. As noted, \$1.7 to \$2.4 million in the potential incremental Connecticut Post sales will come from residents of the New Haven SMSA (primarily from the six cities/towns of East Haven, Bethany, Woodbridge, Orange, West Haven and New Haven). Approximately 92% of these incremental sales will represent diversions from existing metropolitan area sales destinations. These diversions and subsequent impacts on SMSA sales are presented in the table below.

PROJECTED POTENTIAL CUMULATIVE IMPACTS

NEW HAVEN SMSA SHOPPERS GOODS SALES

(In millions of 1977 constant dollars)

	<u>Scenario I</u>		<u>Scenario II</u>	
	<u>1985</u>	<u>1990</u>	<u>1985</u>	<u>1990</u>
Projected SMSA Sales ^{1/}	\$428.5	\$426.8	\$464.0	\$485.7
Potential Diversions to Connecticut Post	\$ 1.6	\$ 2.2	\$ 1.6	\$ 2.2
As Percent of SMSA Sales	0.4%	0.5%	0.4%	0.5%

^{1/} Under incremental supply. Includes improved inflow resulting from North Haven Mall.

Source: Gladstone Associates

Sales diversions to Connecticut Post would have a minimal impact on shoppers goods sales in the New Haven metropolitan area. Under both Scenarios I and II, these diversions would represent 0.4% of projected metropolitan area shoppers goods sales in 1985 and 0.5% of these sales in 1990.

Of particular interest here are the potential impacts of these diversions to Connecticut Post on the New Haven CBD and on Hamden's Magic Mile -- the two major retail centers in the New Haven metropolitan area. Under the incremental supply condition, expenditures at these two centers which would originate from the six SMSA locations noted above (East Haven, Bethany, Woodbridge, Orange, West Haven and New Haven) were expressed as a percentage of aggregated purchasing power in these towns. Expenditures at New Haven CBD originating from these SMSA locations range from 23 percent in 1985 and 1990 under Scenario I to 22 percent in 1985 and 1990 under Scenario II. The respective percentages of purchasing power from these locations spent at Hamden's Magic Mile are estimated at 5.9 percent under Scenario I and 5.4 percent under Scenario II. To determine the potential diversion of SMSA expenditures from these centers to Connecticut Post, these percentages were applied to the SMSA diversions projected above.

Under these conditions, it is estimated that an improved Connecticut Post (as described) might divert \$400,000 to \$500,000 annually from New Haven's CBD and \$90,000 to \$100,000 per year from Hamden's Magic Mile.

2. Community Shopping Centers

Based on past trends concerning additions to the regional retail supply, it is recognized that perhaps 250,000 square feet of additional shoppers goods space might be added to the regional supply through the year 1990 in the form of small community shopping centers, ranging in total size from, say, 100,000 to 150,000 square feet. The anchors of such centers would likely be a single discount department store and a major supermarket. Small specialty stores and personal service establishments might also be included in the centers. These centers would probably be located at the periphery of the New Haven metropolitan area in communities currently underserved by the existing retail supply.

Community shopping centers typically have a narrowly confined market area, perhaps within a driving range of approximately 15 to 20 minutes along local streets. Because of this constricted trade area, as well as the type of merchandise offered in these centers, it is judged that there would be minimal impacts on New Haven's CBD. On the other hand, depending on the location of these centers (no specific proposals are known to date), sales at Hamden's Magic Mile may be impacted to the extent that some shoppers may find comparable retail services in a new center. Such potential impacts can not be reasonably quantified, however, since there are no specific locations, centers or stores to be evaluated.

3. Retail Project Proposals

Possible candidate sites for the provision of additional retail services were identified through interviews with appropriate public agency technical personnel, a representative sampling of private retail

interests, and visits to a cross section of real estate brokers. These investigations have revealed the existence of several proposals relating to major retail centers in and around the trade area of the proposed North Haven Mall. A brief analysis of these proposals, set forth below, reflects that none of them are likely to be implemented in the reasonable foreseeable future.

- Marsh Hill Road, Orange: This proposal is for a regional shopping mall at a currently undeveloped site near Exit 41 and I-95. No application respecting this possible development has been filed with the Town of Orange. There has been no public indication that any major chain retailer has entered into any commitment for this possible development.

The Town of Orange requires that a shopping center be sewered. With minor and immaterial exceptions, the entire town uses septic tanks. The neighboring municipality of West Haven has refused to allow Orange to tie into its sewer system. Thus, unless West Haven alters its position, this proposal would be required to have sewage treatment facilities. In addition, a mall would require the upgrading and widening of Marsh Hill Road to provide adequate access.

Finally, development of the North Haven Mall is likely to render this proposal more remote.

- Milford Parkway and Wilbur Cross Parkway, Milford: This proposal is for a regional shopping center at a currently undeveloped site in Milford, Connecticut between the Milford Parkway and Wilbur Cross Parkway.

The property is zoned for low density residential use, and a zoning change is thus required. There is currently no application on file with the Town Planning and Zoning Commission for that change. In addition, a special permit would be necessary, and no application for that approval has been filed. There has been no public indication that any major chain retailer has entered into any commitment for this possible development.

Access is extremely limited and implementation of this proposal would require the construction of an interchange to the Milford Parkway. A plan for this interchange and traffic improvements, as part of an application for certification, has been submitted to the Connecticut State Traffic Commission.

In addition, truck traffic is banned on the Wilbur Cross Parkway and the Milford Parkway; thus, the only access for trucks to the potential site would be through local and principally secondary streets.

The town's sewage treatment plant, which would service a mall, possesses no additional capacity, and a planned expansion requires, at a minimum, federal approval, bond approval, and condemnation of necessary property before construction can commence.

Finally, development of the North Haven Mall would make implementation of this proposal less likely.

- Magic Mile, Hamden: The most recent proposal by the Town of Hamden relating to this shopping area involves a phased expansion. This proposal involves a phased expansion. This proposal involves the demolition of two existing retail facilities on the eastern side of Dixwell Avenue, and extensive reconstruction of retail structures on top of parking facilities. This proposal has been rejected, according to the Town, by owners of the property.

There have also been, according to the Town, discussions about upgrading these two retail facilities through the addition of several small stores along Dixwell Avenue. The intent of such additions would be to make these centers more attractive from the Avenue. This proposal would require a variance as it would reduce the available parking below that required by the Town's zoning. This proposal has not advanced beyond the discussion stage.

- East Main Street, Branford: There was a proposal for the possible construction of a shopping mall at East Main Street in Branford off Exit 56 of I-95. Until mid-1979, the proposed site was zoned industrial, a category which would not permit a regional shopping center. The developer sought a zoning change to a "special development area" district for 200 acres, which would have allowed a shopping center development, subject to various other town approvals. In July, 1979, the Town Planning and Zoning Commission granted re-zoning of only 30 of the requested 200 acres.

At present, this development proposal is inactive. Town officials indicated the absence of any active interest in the site for development of a regional shopping center.

III. ATTACHMENTS

A. Background Economic Indicators

III. ATTACHMENTS

A. BACKGROUND ECONOMIC INDICATORS

A detailed analysis of demand for retail goods and services appears in Section IIA of the body of this technical report. This analysis is based on the evaluation of various interrelated economic variables which are detailed below -- population, employment and income.

To better understand the relative position of the New Haven region against that of the State of Connecticut and the larger Southern New England region, trends and projections in population, employment and income for the three areas have been examined and compared. In general, the economic climate of the New Haven SMSA compares favorably with that of the State and the larger region.

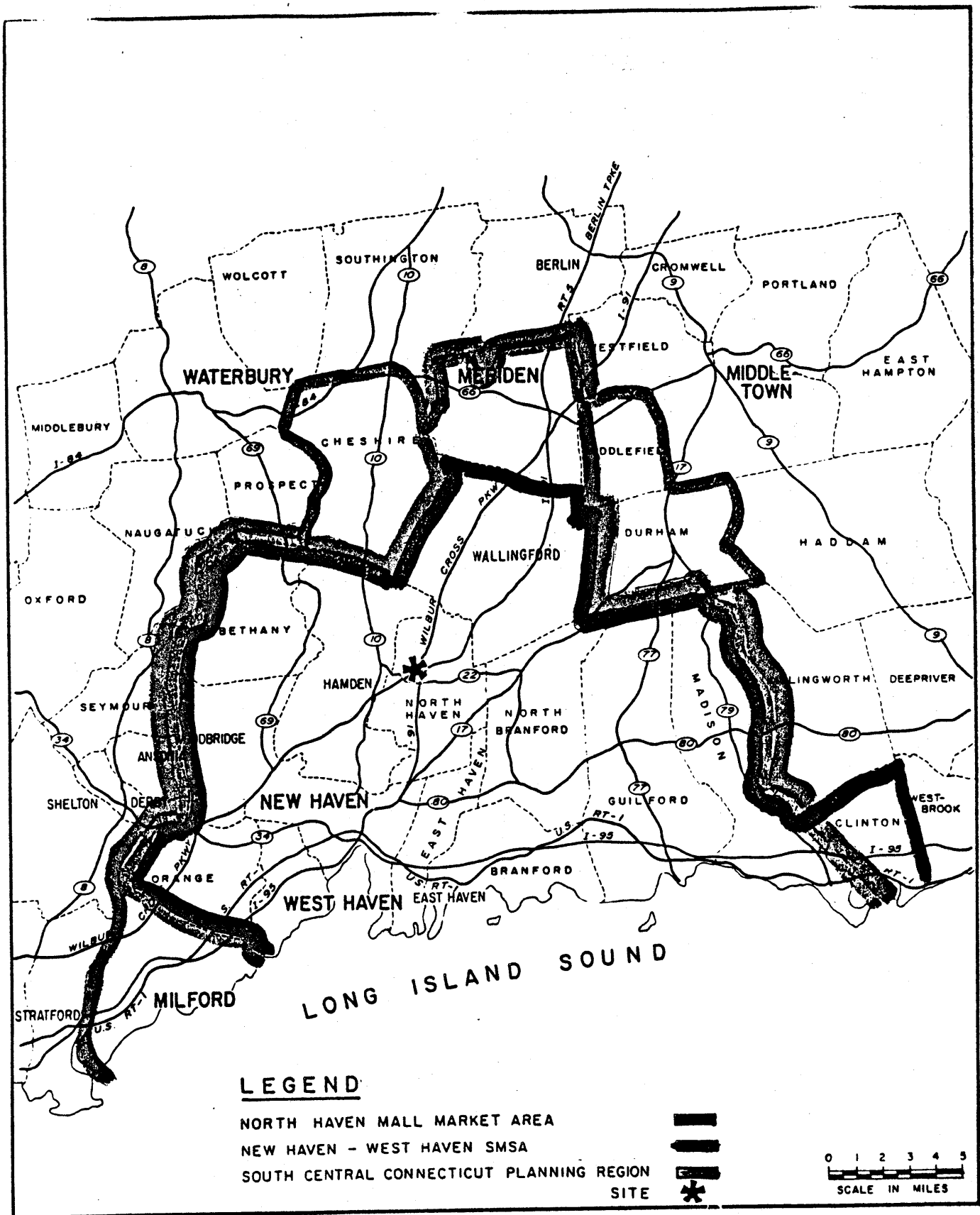
- While population in the City of New Haven has been declining, population in the suburbs has increased at a rate at least equal to, if not greater than, that of the other larger geographic regions. Population projections indicate that this trend is expected to generally continue through 1990.
- Employment in the New Haven Labor Market Area (defined as the New Haven SMSA) has increased steadily since 1975. Recent unemployment rates are approximately equal to that of the State of Connecticut. Employment projections for the region indicate that the employment in the region is expected to increase by about 1 percent annually through 1990.
- Per capita income for the SMSA has generally been lower than that of the State of Connecticut but higher than per capita income for the Southern New England area.

These economic indicators are analyzed more fully below.

1. Definition of Relevant Geographic Areas

In the course of this analysis, several geographic areas will be referred to, discussed and/or compared. These have been defined as follows:

- New Haven-West Haven SMSA. This area is of primary importance because it is the area for which published information is most readily available. In New England, the Standard Metropolitan Statistical Area (SMSA) is defined by the Bureau of the Census to include a city (cities) of specified population which constitute the central city. It also includes contiguous cities and towns when the economic and social relationships between these meet specified criteria of metropolitan character and integration. The composition of the SMSAs are reviewed periodically and certain cities/towns may be added or deleted as deemed necessary. The New Haven-West Haven SMSA is currently defined to include the following: Clinton, New Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, North Haven, Orange, Wallingford, and Woodbridge. (Clinton, Madison and Wallingford were added to the SMSA definition in April, 1973.)
- North Haven Mall Market Area. Based on current retailing patterns, road networks, driving times and population centers, the principal market area for the proposed mall includes North Haven, New Haven, Wallingford, North Branford, East Haven, Cheshire, Bethany, Woodbridge, Branford, Guilford, Hamden, Orange, West Haven, Clinton, Madison, Durham, Middlefield and Meriden.
- South Central Connecticut Planning Region. The State of Connecticut has been divided into approximately 15 planning regions. These planning regions do not conform to SMSA boundaries and are not recognized by the Bureau of the Census as separate economic units. They have been designated as separate regions as a planning tool only. The South Central Region is centered around the New Haven metropolitan area but is defined differently than the SMSA. The planning region has been defined to include Bethany, Branford, Guilford, Hamden, Madison, Meriden, Milford, New Haven, West Haven, East Haven, North Branford, North Haven, Orange, Wallingford, and Woodbridge.



NORTH HAVEN MALL
VALLEY SERVICE ROAD
NORTH HAVEN, CONNECTICUT

AREA DEFINITIONS
NEW HAVEN REGION



FIGURE

- New Haven. The City of New Haven itself and, in particular, the central business district (CBD) are important in that they represent major centers of economic, employment and cultural activity in the region.
- North Haven. As the municipal location for the proposed mall, the Town of North Haven will experience a series of direct impacts. It is important to understand the existing economic climate as well as recent trends taking place in the Town of North Haven in order to better assess any future impacts of the proposed mall.
- Southern New England. This is defined to include the states of Massachusetts, Rhode Island and Connecticut. Given their geographic orientation in the Northeast, the major transportation routes running through these states, and general similarities in terms of population growth, employment growth and economic base, it is important to understand this region as a single economic unit in which its various subareas -- that is the individual states, the SMSAs and the individual cities and towns -- operate.
- State of Connecticut. The municipalities in the State are most directly affected by the economic policies and decisions made at the State level. Trends on the local and regional levels would be most directly compared to state trends to assess the New Haven region's relative position.

2. Population

New Haven-West Haven SMSA. Population in the metropolitan area, as a whole, has continued to show small increases in population over the last several years. This trend is expected to continue through 1990.

- Between 1960 and 1970 population increased from 359,500 to 411,300 -- an annual increase of 5,200 persons or 1.4 percent compared with an annual rate of increase of 2.0 percent for the State.

- This regional growth slowed between 1970 and 1980 to about 0.2 percent annually, or an increase of about 630 persons per year.
- Population projections indicate that population in the region is expected to increase by 0.3 percent annually through 1990 -- adding about 1,100 persons per year.

City of New Haven. The population increases in the New Haven-West Haven SMSA were not distributed equally throughout the region. While many suburban areas were experiencing gains in total population, the City of New Haven has lost population over the last 20 years. For example:

- between 1960 and 1970, population declined from 152,000 to 137,700 -- an average annual decline of 0.9 percent.
- in the following decade population continued to decline at a rate of 0.8 percent annually to a 1980 population of 126,100.
- further minor decreases in the city's population are anticipated through 1985 when population is projected at 124,100. A slight reversal in past population trends is then anticipated and population is expected to reach 126,100 again in the year 1990.

Suburbs. While the City of New Haven was experiencing population losses, the population in the suburbs was increasing at a rate at least equal to, if not greater than, that of the State of Connecticut and the Southern New England region. These comparisons are detailed in the table below. Briefly,

- the population in the New Haven suburbs increased at a rate of 3.1 percent annually between 1960 and 1970, adding 6,600 persons per year (as compared with annual rates of increase of 2.0 percent for Connecticut and 1.3 percent for Southern New England).

- suburban population continued to increase through 1980 at about 0.7 percent annually. This moderating trend reflects the population gains taking place in the state and larger Southern New England region during this same period.
- the current population of the SMSA is estimated at 417,600 persons. Of this, 291,500 persons are residing in places outside of the city of New Haven
- 70 percent of the SMSA population.
- These increases in population are expected to continue at a rate of about 0.4 percent annually through 1990 when suburban population is projected to be 302,500.

State of Connecticut. The State of Connecticut has had population increases at a rate slightly above that for the Southern New England area.

- Between 1960 and 1970 State's population increased at a rate of 2 percent annually, or about 50,000 persons from 2,535,200 in 1960 to 3,031,700 in 1970.
- With current population at about 3,108,000 this growth has slowed considerably since 1970 to an annual rate of increase of 0.3 percent.
- Population projections prepared by the Office of Policy and Management indicate that population in the State is expected to increase at less than 1.0 percent annually through the year 1990.

Southern New England. During the last 20 years, the most substantial gains in population occurred between 1960 and 1970 when population increased from 8,543,300 to 9,669,500.

- During this period the region added approximately 112,600 people per year for an annual growth rate of 1.3 percent.

POPULATION TRENDS AND PROJECTIONS
NEW HAVEN REGION AND SOUTHERN NEW ENGLAND

1960 - 1990
(In Thousands)

	1960	1970	1972	1977	1980	1985	1990	Average Annual Change					
								1960 - 1970		1970 - 1980		1980 - 1990	
								Number	Percent	Number	Percent	Number	Percent
<u>New Haven - West Haven</u>													
City of New Haven	152.0	137.7	135.4	127.5	126.1	124.1	126.1	(1.4)	(0.9)	(1.2)	(0.8)	--	--
Suburbs	207.5	273.6	277.2	287.3	291.5	297.3	302.5	6.6	3.1	1.8	0.7	1.1	0.4
Total	359.5	411.3	412.6	414.8	417.6	421.4	428.6	5.2	1.4	0.6	0.2	1.1	0.3
<u>Southern New England</u>													
Connecticut	2,535.2	3,031.7	3,046.9	3,084.8	3,107.6	3,179.6	3,258.2	50.0	2.0	7.7	0.3	15.1	0.5
Balance	6,008.1	6,637.8	6,647.2	6,670.4	6,684.2	6,693.4	6,730.7	63.0	1.0	4.6	0.1	4.7	0.1
Total	8,543.3	9,669.5	9,694.1	9,755.2	9,791.8	9,873.0	9,988.9	112.6	1.3	12.2	0.1	19.7	0.2

Source: U.S. Census, 1970, 1980 Estimates, State of Massachusetts, Office of State Planning; Rhode Island Statewide Planning Program; State of Connecticut, Office of Policy and Management; Norris Andrews, South Central Connecticut Regional Planning Agency (1977 Estimates For New Haven SMSA); Gladstone Associates.

- Of the three states, Connecticut experienced the highest annual growth rate during this period -- 2.0 percent annually.
- From 1970 to 1980 growth slowed considerably with slightly more than 12,000 persons added each year for an annual growth rate of 0.1 percent. Current estimates place the region's population at about 9.8 million people.
- Projections from each state indicate that population growth will not be as substantial as reported through the early 1970's. Through 1990, population growth in the region is projected at about 0.2 percent annually.

3. Employment

Employment is measured in two ways: by place of residence, that is the number of residents of a particular area who are employed (these individuals may or may not work in the town in which they live); and by place of work -- for a given area the number of persons working for firms located in that particular area.

New Haven-West Haven SMSA. As mentioned in the previous section, the SMSA definition closely approximates that of the North Haven Mall Market Area. Therefore, employment data reported for this area are expected to be indicative of the employment situation in the Mall's Market Area. Employment trends in the region are outlined as follows:

- Nonagricultural employment trends, as reported by place of work by the Bureau of Labor Statistics, show that between 1972 and 1976 the New Haven Labor Market Area lost slightly more than 430 jobs annually -- a decline of 0.2 percent per year.
- The largest decreases were in the construction and manufacturing sectors. Employment gains from 0.6 to 2.4 percent annually, however, were registered in the service, wholesale and retail trade, and finance sectors.

- These losses in employment were due more to national economic conditions than to circumstances peculiar to the New Haven SMSA economy. Since 1976, there have been significant increases in employment. An average of 4,403 jobs were added annually between 1976 and 1980 for an annual rate of increase of 2.5 percent. The largest employment gains were in the following sectors:

Wholesale and Retail Trade	3.0% annual increase
Transportation	3.8% annual increase
Services	4.0% annual increase
Government	1.9% annual increase

- Employment projections prepared by the Connecticut Department of Transportation indicate that employment will increase by about 1,800 jobs per year through 1990. The largest increases are expected to occur in the trade and services sectors.

These trends reflect shifts in the employment base of not only the New Haven region, but of Southern New England as well, away from manufacturing and into the services and trade sectors.

The unemployment rate in the SMSA (which is reported by place of residence) has generally reflected trends on the State level. Unemployment in the region did peak at a slightly higher point in 1976 -- 9.9 percent as compared with 9.5 percent for the state. Recent figures show unemployment rates for the SMSA and the State at 6.3 and 5.9 percent, respectively.

TRENDS IN UNEMPLOYMENT RATES

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
New Haven SMSA	8.0%	6.2%	6.1%	9.1%	9.9%	8.1%	4.8%	5.2%	6.3%
State of Connecticut	8.6%	6.3%	6.1%	9.1%	9.5%	7.0%	5.2%	5.1%	5.9%

NONAGRICULTURAL EMPLOYMENT TRENDS^{1/}
NEW HAVEN LABOR MARKET AREA^{2/}
1972 - 1980

	1972	1973	1974	1975	1976	1977	1978	1979	1980 ^{5/}	Average Annual Change					
										1972 - 1976		1976 - 1980		1972 - 1980	
										Number	Percent	Number	Percent	Number	Percent
Manufacturing	46,940	49,120	49,090	43,690	43,320	43,860	45,260	44,750	43,500	-905	-1.9	45	0.1	-430	-0.9
Construction and Mining	8,530	8,480	7,750	6,120	5,690	5,670	6,020	6,130	7,000	-710	-8.3	328	5.8	-191	-2.2
T.C.U. ^{3/}	14,240	14,380	14,550	14,140	14,050	14,360	15,220	15,280	16,200	-48	-0.3	538	3.8	245	1.7
Wholesale and Retail Trade	35,300	35,700	36,230	35,110	36,180	36,890	39,440	40,460	40,500	220	0.6	1,080	3.0	650	1.8
F.I.R.E. ^{4/}	9,060	9,150	9,360	9,330	9,560	9,620	10,180	10,470	10,900	125	1.4	335	3.5	230	2.5
Services	37,300	38,400	40,160	39,900	40,920	41,780	45,200	46,230	47,500	905	2.4	1,645	4.0	1,275	3.4
Government	23,440	23,050	22,740	23,060	23,370	23,280	26,280	26,290	25,100	-18	-0.1	433	1.9	208	0.9
Total	174,810	178,360	179,880	171,350	173,090	175,460	187,600	189,610	190,700	-430	-0.2	4,403	2.5	1,986	1.1

1/ By place of work.

2/ Includes Clinton, New Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, North Haven, Orange, Wallingford and Woodbridge.

3/ Transportation, Communications and Utilities.

4/ Finance, Insurance and Real Estate.

5/ Based on rounded estimates from the U.S. Department of Labor.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics; Gladstone Associates.

EMPLOYMENT TRENDS AND PROJECTIONS

NEW HAVEN-WEST HAVEN SMSA

1970 - 2000

	1970	1975	1980	1985	1990	2000	Average Annual Change									
							1970 - 1975		1975 - 1980		1980 - 1985		1985 - 1990		1990 - 2000	
							Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Manufacturing	53,969	44,293	43,168	45,760	48,352	51,659	-1,935	-3.6	-225	-0.5	518	1.2	518	1.1	331	0.7
Retail	33,021	35,366	40,842	42,731	44,620	48,537	469	1.4	1,095	3.1	378	0.9	378	0.9	392	0.9
Other ^{1/}	88,772	95,215	108,866	113,499	118,132	125,051	1,289	1.5	2,730	2.9	927	0.9	927	0.9	692	0.6
Total	175,762	174,874	192,876	201,990	211,122	225,253	-178	-0.1	3,600	2.1	1,826	0.9	1,823	0.9	1,413	0.7

1/ The Connecticut Department of Transportation has recently revised industry classifications combining services and "other" sectors under "other".

SOURCE: Connecticut Department of Transportation; Gladstone Associates.

EMPLOYMENT AND UNEMPLOYMENT TRENDS^{1/}
NEW HAVEN LABOR MARKET^{2/} STATE OF CONNECTICUT
1972 - 1980

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Average Annual Change					
										1972 - 1976		1976 - 1980		1972 - 1980	
										Number	Percent	Number	Percent	Number	Percent
<u>Labor Market Area</u>															
Labor Force	193,800	194,200	194,500	194,428	195,922	198,018	200,740	203,542	203,458	531	0.3	1,884	1.0	1,207	0.6
Employed	178,200	182,200	182,600	176,769	176,507	181,970	191,078	192,968	190,634	-423	-0.2	3,532	2.0	1,554	0.9
Unemployed	15,600	12,000	11,900	17,659	19,415	16,048	9,662	10,574	12,824	954	6.1	-1,648	-8.5	-347	-2.2
Unemployment Rate	8.0	6.2%	6.1%	9.1%	9.9%	8.1%	4.8%	5.2%	6.3%	--	--	--	--	--	--
<u>State of Connecticut</u>															
Labor Force	1,410,000	1,421,000	1,439,000	1,454,000	1,464,000	1,500,000	1,519,000	1,581,000	1,594,000	13,500	1.0	32,500	2.2	23,000	1.6
Employed	1,289,000	1,332,000	1,351,000	1,321,000	1,326,000	1,394,000	1,440,000	1,500,000	1,500,000	9,250	0.7	43,500	3.3	26,375	2.0
Unemployed	121,000	89,000	88,000	133,000	138,000	106,000	79,000	81,000	94,000	4,250	3.5	-11,000	-8.0	-3,375	-2.8
Unemployment Rate	8.6%	6.3%	6.1%	9.1%	9.5%	7.0%	5.2%	5.1%	5.9%	--	--	--	--	--	--

1/ By place of residence.

2/ Includes, Clinton, New Haven, West Haven, Bethany, Branford, East Haven, Guilford, Hamden, Madison, North Branford, North Haven, Orange Wallingford and Woodbridge.

SOURCE: Connecticut Labor Department, Employment Security Division; Gladstone Associates.

City of New Haven. Unemployment rates among city residents have typically been higher than those of the Labor Market Area as a whole. Figures for 1980 show unemployment for the city at 7.5 percent down from a high of 11.7 percent in 1976.

Suburbs. Unemployment rates have varied among the cities and towns surrounding New Haven. In general, suburban residents have experienced a lower rate of unemployment than have New Haven city residents. The larger and more urban communities such as East Haven and West Haven typically have had unemployment rates which have been higher than other suburban towns.

State of Connecticut. The employment base in the State is undergoing changes similar to those taking place in the New Haven region. The State's employment base is gradually shifting from a dependence on the manufacturing sector to the one which is more service oriented.

- Between 1972 and 1975 the construction, manufacturing and transportation sectors were losing about 8,100 jobs annually. These losses were offset by gains in the trade, finance, service and government sectors totaling 19,100 jobs per year.
- Total employment increased by an annual rate of 0.9 percent between 1972 and 1975 from 1,190,300 to 1,223,400.
- The State appears to have recovered from the temporary effects of the 1975 recession. Between 1975 and 1980 total employment increased from 1,223,400 to 1,426,800 -- an average annual increase of 3.3 percent.

Unemployment in the state peaked at 9.5 percent in 1976 and was at about 6 percent in 1980.

TRENDS IN UNEMPLOYMENT RATES
NORTH HAVEN LABOR MARKET AREA
1975 - 1979

<u>SMSA</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
North Haven	7.5%	8.6%	7.0%	4.2%	4.4%	5.5%
New Haven	11.3%	11.7%	9.5%	5.6%	6.4%	7.5%
Wallingford	8.7%	8.6%	6.6%	3.8%	4.0%	6.4%
Hamden	7.6%	9.2%	7.8%	4.5%	4.7%	5.3%
North Branford	7.0%	8.2%	7.0%	4.1%	4.4%	5.5%
East Haven	10.3%	11.6%	9.7%	6.0%	6.3%	8.1%
Bethany	5.5%	7.3%	6.3%	4.1%	3.3%	4.6%
Woodbridge	4.3%	5.5%	4.2%	2.6%	2.9%	3.4%
Orange	5.5%	6.4%	5.3%	3.4%	3.8%	4.3%
West Haven	10.9%	11.6%	9.5%	5.7%	6.3%	7.1%
Branford	7.8%	9.1%	7.3%	4.8%	4.6%	5.8%
Guilford	5.3%	6.4%	5.5%	3.2%	3.1%	4.1%
Madison	4.5%	5.2%	4.4%	2.6%	2.6%	2.9%
Clinton	7.2%	8.6%	7.8%	4.2%	3.5%	4.4%

Source: Connecticut Department of Labor; Gladstone Associates.

EMPLOYMENT TRENDS
STATE OF CONNECTICUT
1972 - 1980
(In Thousands)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Average Annual Change					
										<u>1972 - 1976</u>		<u>1976 - 1980</u>		<u>1972 - 1980</u>	
										<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Manufacturing	400.1	420.2	430.9	389.8	397.0	406.7	419.6	435.1	440.8	-0.8	-0.2	11.0	2.8	5.1	1.3
Construction	57.6	59.6	54.6	44.9	40.5	43.7	47.9	51.3	50.2	-4.3	-7.5	2.4	5.9	-0.9	-1.6
Transportation and Public Utilities	54.5	56.0	56.1	53.1	52.9	55.4	57.8	61.3	60.8	-0.4	-0.7	2.0	3.8	0.8	1.5
Wholesale and Retail Trade	235.0	244.5	250.4	251.0	256.2	267.3	284.2	297.3	299.0	5.3	2.3	10.7	4.2	8.0	3.4
F.I.R.E. ^{1/}	78.2	82.6	85.2	86.0	87.7	90.7	95.2	99.7	105.1	2.4	3.1	4.4	5.0	3.4	4.3
Services and Miscellaneous	199.7	208.1	215.9	219.9	230.4	242.9	262.2	274.7	285.7	7.7	3.8	13.8	6.0	10.8	5.4
Government	165.2	167.7	171.0	178.7	175.1	173.3	179.2	181.5	185.2	2.5	1.5	2.5	1.4	2.5	1.5
Total	1,190.3	1,238.7	1,264.1	1,223.4	1,239.8	1,280.0	1,346.1	1,400.9	1,426.8	12.4	1.0	46.8	3.8	29.6	2.5

^{1/} Finance, Insurance and Real Estate.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics; Gladstone Associates.

Southern New England. Employment in the Southern New England region has increased over the past eight years. Although there was a temporary decrease in total employment in 1975 due to the effects of the recession, total employment has increased from 3,800,100 in 1972 to 4,477,300 in 1980 -- an annual increase of 2.2 percent.

The nature of employment in Southern New England has been changing as new jobs are added. The relative importance of manufacturing has been decreasing for several years. For example:

- In 1972, 29.8 percent of total employment was concentrated in manufacturing, 4.7 percent in construction and 5.0 percent in transportation and utilities.
- In 1980 these sectors represented 27.8 percent, 3.1 percent and 4.4 percent of total employment respectively.
- During this period the total number of service-related jobs was increasing at a rate greater than the rate of increase in total employment. Between 1972 and 1980, annual increases in employment in the trade sector were 2.2 percent, in the finance sector 3.4 percent, in the service sector 5.5 percent and in the government sector 2.0 percent. At the same time, the rate of increase in total employment was 2.2 percent.

4. Per Capita and Aggregate Income Trends

There are two ways in which income trends can be expressed. Income figures are typically reported in "current" dollars. These are dollars which are unadjusted for the effects of inflation. Income trends expressed in current dollars are contained within the data package at the end of these technical reports.

The second method adjusts these dollars for the effects of inflation by using the Consumer Price Index (CPI). By expressing all money in constant dollars, real changes in income or expenditures can be readily seen.

EMPLOYMENT TRENDS
SOUTHERN NEW ENGLAND^{1/}
1972 - 1980

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Average Annual Change					
										1972 - 1976		1976 - 1980		1972 - 1980	
										Number	Percent	Number	Percent	Number	Percent
Manufacturing	1,131.3	1,180.4	1,196.2	1,080.3	1,113.5	1,156.5	1,206.4	1,237.7	1,243.9	-4.5	-0.4	32.6	2.9	14.1	1.2
Construction	180.0	182.5	165.0	136.2	119.5	123.0	134.2	141.5	140.3	-15.1	-8.4	5.2	4.4	-5.0	-2.8
Transportation and Public Utilities	191.3	194.8	194.7	180.1	179.0	183.6	188.4	194.9	195.4	-3.1	-1.6	4.1	2.3	0.5	0.3
Wholesale and Retail Trade	810.6	836.5	844.2	834.2	850.7	878.4	910.9	945.8	954.4	10.0	1.2	25.9	3.0	18.0	2.2
F.I.R.E. ^{2/}	223.9	233.8	240.3	239.0	241.5	253.0	261.9	268.8	284.9	4.4	2.0	10.9	4.5	7.6	3.4
Services and Miscellaneous	697.9	735.2	764.0	774.3	815.7	723.1	898.4	949.9	1,003.7	29.5	4.2	47	5.8	38.2	5.5
Government	565.1	574.8	580.4	600.6	607.9	588.0	668.2	661.2	654.7	10.7	1.9	11.7	1.9	11.2	2.0
Total	3,800.1	3,938.0	3,984.8	3,844.7	3,927.8	3,905.6	4,268.4	4,399.8	4,477.3	31.9	0.8	137.4	3.5	84.7	2.2

^{1/} Includes Massachusetts, Rhode Island and Connecticut.

^{2/} Finance, Insurance and Real Estate..

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics; Gladstone Associates.

Aggregate income is a function of both population trends and per capita income trends. Since income and population may not increase at similar rates, the rate of increase in aggregate income may be higher or lower than the changes reported in per capita income. Detailed tables for aggregate income trends are included in the data package at the end of these technical reports.

<u>PER CAPITA INCOME TRENDS</u>				
<u>1969-1979</u>				
(In 1977 Constant Dollars)				
	<u>1969</u>	<u>1972</u>	<u>1977</u>	<u>1979</u>
New Haven-West Haven SMSA				
New Haven	\$5,247	\$5,261	\$4,922	\$4,861
Balance SMSA	\$6,379	\$6,770	\$6,960	\$7,144
Total	\$6,000	\$6,275	\$6,334	\$6,455
State of Connecticut	\$6,422	\$6,788	\$6,939	\$7,107
Southern New England	\$5,834	\$6,170	\$6,307	\$6,461

Source: U.S. Census; 1970, 1980 Estimates; Gladstone Associates.

New Haven-West Haven SMSA. As detailed above, per capita income for the SMSA has generally been lower than that of the State of Connecticut but generally in line with that reported for the Southern New England region. The lower overall per capita income figures for the SMSA are attributable primarily to the lower per capita income figures reported for the City of New Haven.

- For example, in 1977, per capita income for the City of New Haven was estimated at \$4,922 as compared to \$6,334 for the SMSA.
- Per capita income figures for the suburban areas are comparable to those of the State of Connecticut and higher than those reported for the Southern New England region. In 1977, per capita income for the suburban areas in the New Haven-West Haven SMSA was estimated at \$6,960; for the State of Connecticut \$6,939; and for Southern New England \$6,307.

Growth in per capita income was negatively affected by the national economic downturn around 1975. The loss of jobs in the New Haven Labor Market Area, described above, subsequently affected personal earnings.

- The gains in SMSA per capita income between 1969 and 1977 (\$6,000 to \$6,334) represented a 0.7% annual gain in real income (i.e. after inflation) despite the negative impacts of the 1975 recession.
- By 1979, metro per capita income had risen to \$6,455 (in constant 1977 dollar terms), a 1% average annual gain in real income. For the state as a whole, the growth rate was 1.2% yearly and 1.3% per annum for the suburban areas of the New Haven metro.
- In light of the substantial increases in employment in the New Haven Labor Market Area, the continued strengthening of the New Haven economy and that of the State of Connecticut, and the favorable outlook for the economy of the Southern New England region as a whole, it is anticipated that per capita income in the New Haven SMSA will likely increase at an annual rate of at least 1.0 percent over the next several years. For purposes of the retail analysis, increases in real per capita income through 1990 have been conservatively estimated at a range of between zero percent (highly conservative) and one percent annually.

State of Connecticut. Per capita income trends for the State of Connecticut have followed the pattern outlined above. Real income increased from \$6,422 in 1969 to \$6,939 in 1977 -- a 1.0% annual growth rate. Per capita income for the State in 1979 was \$7,107 (in 1977 dollars) -- a 1.2% annual increase.

Southern New England. Per capita income trends for the Southern New England region are detailed in the table above. Recent estimates place 1977 per capita income for the area at \$6,307.

POPULATION TRENDS AND PROJECTIONS

NORTH HAVEN STUDY AREA

1960 - 1990

	1960	1970	1972	1977	1980	1985	1990	Average Annual Change					
								1960 - 1970		1970 - 1980		1980-1990	
								Number	Percent	Number	Percent	Number	Percent
SMSA Cities/Towns													
North Haven	15,935	22,194	22,171	22,100	22,080	22,370	22,600	626	39	(11)	-	52	0.2
New Haven	152,048	137,707	135,387	127,500	126,109	124,110	126,110	(1,434)	(0.9)	(1,160)	(0.8)	--	--
Wallingford	29,920	35,714	36,026	36,850	37,274	38,770	39,770	579	1.9	156	0.4	250	0.7
Hamden	41,056	49,357	49,700	50,500	51,071	51,470	51,670	830	2.0	171	0.3	60	0.1
North Branford	6,771	10,778	10,933	11,300	11,554	11,700	11,950	401	5.9	52	0.5	40	0.3
East Haven	21,388	25,120	25,102	25,000	25,028	25,080	25,430	373	1.7	(9)	--	40	0.2
Bethany	2,384	3,857	3,952	4,150	4,330	4,480	4,630	147	6.2	47	1.2	30	0.7
Woodbridge	5,183	7,673	7,691	7,725	7,761	7,860	7,960	249	4.8	9	0.1	20	0.3
Orange	8,547	13,524	13,467	13,350	13,237	13,440	13,640	498	5.8	(29)	(0.2)	40	0.3
West Haven	43,002	52,851	52,918	53,100	53,184	53,780	54,130	985	2.3	33	0.1	95	0.2
Branford	16,610	20,444	21,028	22,750	23,363	23,830	24,280	383	2.3	292	1.4	92	0.4
Guilford	7,913	12,033	13,101	16,400	17,375	18,150	18,880	412	5.2	534	4.4	151	0.9
Madison	4,567	9,768	10,621	13,250	14,031	14,730	15,530	520	11.4	426	4.4	150	1.1
Clinton	4,166	10,267	10,453	10,850	11,195	11,610	12,040	610	14.6	93	0.9	85	0.8
SMSA Total	359,489	411,287	412,550	414,825	417,592	421,380	428,620	5,180	1.4	631	0.2	1,103	0.3
Non-SMSA Cities/Towns													
Durham	3,096	4,489	4,620	4,900	5,143	5,430	5,820	139	4.5	65	1.5	68	1.3
Middlefield	3,255	4,132	4,065	3,400	3,796	4,000	4,200	89	2.7	(34)	(0.8)	40	1.1
Meriden	51,850	55,959	56,191	56,750	57,118	57,670	58,020	411	0.8	116	0.2	90	0.2
Cheshire	13,383	19,051	19,598	20,950	21,788	23,290	24,790	567	4.2	274	1.4	300	1.4
Non-SMSA Total	71,584	83,631	84,474	86,000	87,845	90,390	92,830	1,205	1.7	421	0.5	498	0.6

Source: U.S. Census (1960, 1970, 1980), Norris Andrews, South Central Connecticut Regional Planning Agency (1977 estimates); State of Connecticut, Office of Policy and Management (1985, 1990 projections).

PER CAPITA INCOME TRENDS

NORTH HAVEN STUDY AREA

1969-1979

(In Thousands of 1977 Constant Dollars)

	<u>1969^{1/}</u>	<u>1972^{2/}</u>	<u>1977^{2/}</u>	<u>1979^{1/}</u>	Average Annual Change					
					<u>1969 - 1972</u>		<u>1972 - 1977</u>		<u>1977 - 1979</u>	
					<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
<u>SMSA Cities/Towns</u>										
North Haven	\$ 6,772	7,218	7,478	7,697	149	2.2	52	0.7	110	1.5
New Haven	\$ 5,247	5,261	4,922	4,861	7	0.1	-68	-1.3	-31	-0.6
Wallingford	\$ 5,744	6,171	6,469	6,689	142	2.5	60	1.0	110	1.7
Hamden	\$ 6,795	7,062	7,026	7,120	89	1.3	-7	-0.1	47	0.7
North Branford	\$ 5,633	6,081	6,425	6,661	149	2.6	69	1.1	118	1.8
East Haven	\$ 5,169	5,497	5,677	5,837	109	2.0	36	0.7	80	1.4
Bethany	\$ 7,486	7,679	7,475	7,507	64	0.9	-41	-0.5	16	0.2
Woodbridge	\$10,923	11,643	12,065	12,419	240	2.2	84	0.7	177	1.5
Orange	\$ 8,257	8,697	8,843	9,037	147	1.8	29	0.3	98	1.1
West Haven	\$ 5,602	5,864	5,904	6,011	87	1.6	8	0.1	54	0.9
Branford	\$ 6,865	7,277	7,476	7,671	137	2.0	40	0.5	98	1.3
Guilford	\$ 6,685	7,230	7,657	7,947	182	2.7	85	1.2	145	1.9
Madison	\$ 6,962	7,577	8,098	8,432	205	2.9	104	1.4	167	2.1
Clinton	\$ 5,630	6,035	6,280	6,475	135	2.4	49	0.8	98	1.6
SMSA Total	\$ 6,000	6,275	6,334	6,455	92	1.5	12	0.2	61	1.0
<u>Non-SMSA Cities/Towns</u>										
Durham	\$ 5,657	6,278	6,884	7,234	207	3.7	121	1.9	175	2.5
Middlefield	\$ 5,881	6,307	6,598	6,814	142	2.4	58	0.9	108	1.6
Meriden	\$ 5,581	5,930	6,097	6,258	116	2.1	33	0.6	81	1.3
Cheshire	\$ 6,678	7,150	7,459	7,697	157	2.4	62	0.9	119	1.6
Non-SMSA Total	\$ 5,847	6,250	6,493	6,661	131	2.2	49	0.8	84	1.3

^{1/} As reported by the respective decennial census and then adjusted by CPI to 1977 constant dollars.

^{2/} Calculated as follows:

1972: (1979 Income - 1969 income) (0.173) + 1969 income.

1977: (1979 income - 1969 income) (0.66) + 1969 income

The 0.173 and 0.66 factors represent the income growth from 1969 to 1972 and 1969 to 1977 as a percent of the total growth from 1969 to 1979 for the U.S. as reported in current population reports, series P-60, No. 132, Bureau of the Census, "Mean Household Money Income." These calculations were done prior to conversion to 1977 dollars.

Source: U.S. Census Bureau; Gladstone Associates.

AGGREGATE INCOME TRENDS
NORTH HAVEN STUDY AREA
1969 - 1979
(In Thousands of 1977 Constant Dollars)

	1969	1972	1977	1979	Average Annual Change					
					1969 - 1972		1972 - 1977		1977 - 1979	
					Number	Percent	Number	Percent	Number	Percent
<u>SMSA Cities/Towns</u>										
	150,033	160,030	165,264	168,970	3,332	2.2	1,047	0.7	1,853	1.1
North Haven	721,285	712,271	627,555	609,392	-3,005	-0.4	-16,943	-2.4	-9,082	-1.4
New Haven	204,775	222,316	238,383	247,870	5,847	3.0	3,213	1.4	4,744	2.0
Wallingford	334,797	350,981	354,813	361,492	5,395	1.6	766	0.2	3,340	1.0
Hamden	60,606	66,484	72,603	76,479	1,954	3.2	1,224	1.8	1,938	2.7
North Branford	129,608	137,986	141,925	145,226	2,793	2.2	789	0.6	1,651	1.2
East Haven	28,822	30,347	31,021	32,316	508	1.8	135	0.4	648	2.1
Bethany	83,660	89,546	93,202	95,826	1,962	2.3	731	0.8	1,312	1.4
Woodbridge	111,461	117,122	118,054	118,931	1,887	1.7	186	0.2	439	0.4
Orange	296,535	310,311	313,502	317,827	4,592	1.5	638	0.2	2,163	0.7
West Haven	140,092	153,021	170,079	178,167	4,310	3.1	3,412	2.2	4,044	2.4
Branford	80,291	94,720	125,575	137,261	4,810	6.0	6,171	6.5	5,843	4.7
Guilford	67,886	80,475	107,299	117,622	4,196	6.2	5,365	6.6	5,162	4.8
Madison	57,803	63,084	68,138	72,067	1,760	3.0	1,011	1.6	1,965	2.9
Clinton	2,467,534	2,588,694	2,627,413	2,679,446	40,387	1.6	7,744	0.3	26,017	1.0
<u>SMSA Total</u>										
	25,445	29,004	33,732	37,204	1,205	4.7	946	3.3	1,736	5.1
<u>Non-SMSA Cities/Towns</u>										
Durham	24,258	25,638	22,430	25,803	460	1.9	-642	-2.5	1,687	7.5
Middlefield	312,310	333,213	346,005	355,370	6,967	2.2	2,558	0.8	4,683	1.4
Meriden	126,994	140,126	156,266	166,735	4,377	3.4	3,228	2.3	5,235	3.4
Cheshire	489,007	527,981	558,433	585,112	12,991	2.7	6,090	1.2	13,340	2.4
<u>Non-SMSA Total</u>										

Source: U.S. Census, 1970, 1980 Estimates; Gladstone Associates.

PER CAPITA INCOME TRENDS

NORTH HAVEN STUDY AREA

1969 - 1979

(In Thousands of Current Dollars)

	<u>1969^{1/}</u>	<u>1972^{2/}</u>	<u>1977^{2/}</u>	<u>1979^{1/}</u>	<u>Average Annual Change</u>					
					<u>1969 - 1972</u>		<u>1972 - 1977</u>		<u>1977 - 1979</u>	
					<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
<u>SMSA Cities/Towns</u>										
North Haven	\$ 4,097	4,983	7,478	9,220	295	7.2	499	10.0	871	11.6
New Haven	\$ 3,174	3,632	4,922	5,822	153	4.8	258	7.1	450	9.1
Wallingford	\$ 3,475	4,260	6,469	8,012	262	7.5	442	10.4	772	11.9
Hamden	\$ 4,111	4,875	7,026	8,528	255	6.2	430	8.8	751	10.7
North Branford	\$ 3,408	4,198	6,425	7,975	263	7.7	445	10.6	775	12.1
East Haven	\$ 3,127	3,795	5,677	6,991	223	7.1	376	9.9	657	11.6
Bethany	\$ 4,529	5,301	7,475	8,992	257	5.7	435	8.2	759	10.2
Woodbridge	\$ 6,608	8,038	12,065	14,876	477	7.2	805	10.0	1,406	11.7
Orange	\$ 4,995	6,004	8,843	10,825	336	6.7	568	9.5	991	11.2
West Haven	\$ 3,389	4,048	5,904	7,200	220	6.5	371	9.2	648	11.0
Branford	\$ 4,153	5,024	7,476	9,188	290	7.0	490	9.8	856	11.4
Guilford	\$ 4,044	4,991	7,657	9,518	316	7.8	533	10.7	931	12.2
Madison	\$ 4,212	5,231	8,098	10,100	340	8.1	573	11.0	1,001	12.4
Clinton	\$ 3,406	4,166	6,280	7,756	253	7.4	423	10.2	738	11.8
SMSA Total	\$ 3,634	4,331	6,334	7,731	232	6.4	401	9.3	699	11.0
<u>Non-SMSA Cities/Towns</u>										
Durham	\$ 3,422	4,334	6,884	8,664	304	8.9	510	11.8	890	12.9
Middlefield	\$ 3,558	4,354	6,597	8,162	265	7.4	449	10.3	783	11.9
Meriden	\$ 3,379	4,094	6,097	7,496	238	7.1	401	9.8	700	11.5
Cheshire	\$ 4,040	4,936	7,459	9,220	299	7.4	505	10.2	881	11.8
Non-SMSA Total	\$ 3,542	4,316	6,493	8,021	258	7.3	435	10.1	764	11.8

1/ As reported by the respective decennial census.

2/ Calculated as follows:

1972: (1979 Income - 1969 income) (0.173) + 1969 income.

1977: (1979 income - 1969 income) (0.66) + 1969 income

The 0.173 and 0.66 factors represent the income growth from 1969 to 1972 and 1969 to 1977 as a percent of the total growth from 1969 to 1979 for the U.S. as reported in current population reports, series P-60, No. 132, Bureau of the Census, "Mean Household Money Income." These calculations were done prior to conversion to 1977 dollars.

Source: U.S. Census, 1970, 1980 Estimates; Gladstone Associates.

AGGREGATE INCOME TRENDS
NORTH HAVEN STUDY AREA
1969 - 1979
(In Thousands of Current Dollars)

	1969	1972	1977	1979	Average Annual Change					
					1969 - 1972		1972 - 1977		1977 - 1979	
					Number	Percent	Number	Percent	Number	Percent
<u>SMSA Cities/Towns</u>										
North Haven	\$ 90,929	110,478	165,264	203,578	6,516	7.2	10,957	9.9	19,157	11.6
New Haven	\$ 437,082	491,725	627,555	738,207	18,214	4.2	27,166	5.5	55,326	8.8
Wallingford	\$ 124,106	153,470	238,383	298,639	9,788	7.9	16,983	11.1	30,128	12.6
Hamden	\$ 202,907	242,288	354,813	435,533	13,127	6.4	22,505	9.3	40,360	11.4
North Branford	\$ 36,731	45,897	72,603	92,143	3,055	8.3	5,341	11.6	9,770	13.5
East Haven	\$ 78,550	95,262	141,925	174,971	5,571	7.1	9,333	9.8	16,523	11.6
Bethany	\$ 17,468	20,950	31,021	38,935	1,161	6.6	2,014	9.6	3,957	12.8
Woodbridge	\$ 50,703	61,820	93,202	115,453	3,706	7.3	6,276	10.2	11,126	11.9
Orange	\$ 67,552	80,856	118,054	143,290	4,435	6.6	7,740	9.2	12,618	10.7
West Haven	\$ 179,112	214,212	313,502	382,924	11,700	6.5	19,858	9.2	34,711	11.1
Branford	\$ 84,904	105,645	170,079	214,659	6,914	8.1	12,887	12.2	22,290	13.1
Guilford	\$ 48,661	65,387	125,575	165,375	5,575	11.5	12,308	18.8	19,900	15.8
Madison	\$ 41,143	55,558	107,299	141,713	4,805	11.6	10,348	18.6	17,207	16.0
Clinton	\$ 34,969	43,547	68,138	86,828	2,859	8.2	4,918	11.3	9,345	13.7
SMSA Total	\$1,494,817	1,787,095	2,627,413	3,228,248	97,426	6.5	168,064	9.4	300,418	11.4
<u>Non-SMSA Cities/Towns</u>										
Durham	\$ 15,361	20,023	33,732	44,559	1,554	10.1	2,742	13.7	5,413	16.0
Middlefield	\$ 14,702	17,699	22,430	31,089	999	6.8	946	5.3	4,330	19.3
Meriden	\$ 189,090	230,046	346,005	428,157	13,652	7.2	23,192	10.1	41,076	11.9
Cheshire	\$ 76,966	96,736	156,266	200,885	6,590	8.6	11,906	12.3	22,310	14.3
Non-SMSA Total	\$ 296,119	364,504	\$ 558,433	\$ 704,690	22,795	7.7	38,786	10.6	72,629	13.0

Source: U.S. Census, 1970, 1980 Estimates; Gladstone Associates.

POPULATION TRENDS AND PROJECTIONS

SOUTHERN NEW ENGLAND

1970 - 1990

(In Thousands)

	<u>1960</u>	<u>1970</u>	<u>1972</u>	<u>1977</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>Average Annual Change</u>							
								<u>1960 - 1970</u>		<u>1970 - 1980</u>		<u>1980 - 1985</u>		<u>1985 - 1990</u>	
								<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Massachusetts	5,148.6	5,689.0	5,698.7	5,722.7	5,737.0	5,733.1	5,752.7	54.0	1.0	4.8	0.1	-0.8	--	3.9	0.1
Rhode Island	859.5	948.8	948.5	947.7	947.2	960.3	978.0	8.9	1.0	-0.2	--	2.6	0.3	3.5	0.4
Connecticut	<u>2,535.2</u>	<u>3,031.7</u>	<u>3,046.9</u>	<u>3,084.8</u>	<u>3,107.6</u>	<u>3,179.6</u>	<u>3,258.2</u>	<u>50.0</u>	<u>2.0</u>	<u>7.7</u>	<u>0.3</u>	<u>14.4</u>	<u>0.5</u>	<u>15.7</u>	<u>0.5</u>
Total	8,543.3	9,669.5	9,694.1	9,755.2	9,791.8	9,873.0	9,988.9	112.6	1.3	12.2	0.1	16.2	0.2	23.2	0.2

SOURCE: U.S. Census, 1970, 1980 Estimates, State of Massachusetts, Office of State Planning; Rhode Island Statewide Planning Program; State of Connecticut, Office of Policy and Management; Gladstone Associates.

PER CAPITA INCOME TRENDS

SOUTHERN NEW ENGLAND

1969 - 1979

(In Thousands)

	<u>1969</u>	<u>1972</u>	<u>1977</u>	<u>1979</u>	<u>Average Annual Change</u>					
					<u>1969 - 1972</u>		<u>1972 - 1977</u>		<u>1977 - 1979</u>	
					<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
<u>Constant Dollars</u>										
Massachusetts	5,633	5,952	6,082	6,227	106	1.9	26	0.4	73	1.2
Rhode Island	5,159	5,467	5,613	5,758	103	2.0	29	0.5	73	1.3
Connecticut	<u>6,422</u>	<u>6,788</u>	<u>6,939</u>	<u>7,107</u>	<u>122</u>	<u>1.9</u>	<u>30</u>	<u>0.4</u>	<u>84</u>	<u>1.2</u>
Total- Southern New England	5,834	6,167	6,307	6,461	111	1.9	28	0.5	77	1.2
 <u>Current Dollars</u>										
Massachusetts	3,408	4,109	6,082	7,459	234	6.9	395	9.6	689	11.3
Rhode Island	3,121	3,774	5,613	6,897	218	7.0	368	9.8	642	11.4
Connecticut	<u>3,885</u>	<u>4,686</u>	<u>6,939</u>	<u>8,513</u>	<u>267</u>	<u>6.9</u>	<u>451</u>	<u>9.6</u>	<u>787</u>	<u>11.3</u>
Total - Southern New England	3,529	4,258	6,307	7,739	243	6.9	410	9.6	716	11.4

Source: U.S. Census, 1970, 1980 Estimates; Gladstone Associates.

AGGREGATE INCOME TRENDS

SOUTHERN NEW ENGLAND

1969 - 1979

(In Thousands)

	<u>1969</u>	<u>1972</u>	<u>1977</u>	<u>1979</u>	<u>Average Annual Change</u>					
					<u>1969 - 1972</u>		<u>1972 - 1975</u>		<u>1975 - 1977</u>	
					<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
<u>Constant Dollars</u>										
Massachusetts	32,046,137	33,918,662	34,805,461	35,724,299	624,175	1.9	177,360	0.5	459,419	1.3
Rhode Island	4,894,859	5,185,450	5,319,440	5,453,978	96,864	2.0	26,798	0.5	67,269	1.3
Connecticut	<u>19,469,577</u>	<u>20,682,357</u>	<u>21,405,427</u>	<u>22,085,713</u>	<u>404,260</u>	<u>2.1</u>	<u>144,614</u>	<u>0.7</u>	<u>340,143</u>	<u>1.6</u>
Total - Southern New England	56,410,573	59,786,469	61,530,328	63,263,990	1,125,299	2.0	348,772	0.6	866,831	1.4
<u>Current Dollars</u>										
Massachusetts	19,388,112	23,415,958	34,805,461	42,792,283	1,342,615	6.9	2,277,901	9.7	3,993,411	11.5
Rhode Island	2,961,205	3,579,639	5,319,440	6,532,838	206,145	7.0	347,960	9.7	606,699	11.4
Connecticut	<u>11,778,155</u>	<u>14,277,773</u>	<u>21,405,427</u>	<u>26,454,999</u>	<u>833,206</u>	<u>7.1</u>	<u>1,425,531</u>	<u>10.0</u>	<u>2,524,786</u>	<u>11.8</u>
Total - Southern New England	34,127,472	41,273,370	61,530,328	75,780,120	2,381,966	7.0	4,051,392	9.8	7,124,896	11.6

Source: U.S. Census, 1970, 1980 Estimates; Rhode Island Department of Statewide Planning; Massachusetts Department of Commerce; Connecticut Department of Policy and Management; Gladstone Associates.

B. Retail Sales Trends and Projections

B. RETAIL SALES
TRENDS AND PROJECTIONS

1. Retail Sales Trends

This section discusses and compares general trends in retail sales for the major geographic areas outlined in Section A, Background Economic Indicators. Presented here are trends in total retail sales (exclusive of automobile dealers and gasoline service stations) with a particular emphasis on shoppers goods sales. The shoppers goods category has been defined to include general merchandise, apparel, furniture and miscellaneous shoppers goods. (The latter includes sporting goods, books, stationery, jewelry, hobby, camera, gift, luggage and sewing goods.) It is estimated that 73 percent of the potential sales of the North Haven Mall would be generated from the shoppers goods categories. (For adjustments made to reported sales to reflect State Sales Tax in 1972 and 1977 and underreporting of sales tax and finance charges in 1972, please refer to the Methodology Section following.)

Within the context of overall sales trends for the New Haven SMSA it is important to understand the detailed sales flows. Specifically, sales inflows -- dollars spent inside the New Haven SMSA by residents who live elsewhere -- and sales outflows -- dollars spent outside the SMSA by SMSA residents -- will be analyzed. An understanding of these flows is of prime importance in analyzing the need for additional retail services. These flows are discussed more fully later in this section.

In general, the information presented below will show that shoppers goods sales in the SMSA have decreased between 1972 and 1977 (the most recent year for which Retail Census information is available). These

sales losses are primarily attributable to losses in the City of New Haven and are of particular concern in light of increases in shoppers goods sales for both the State of Connecticut and the Southern New England Region (Massachusetts, Rhode Island and Connecticut).

SHOPPERS GOODS SALES TRENDS

1972-1977

(In Thousands of 1977 Constant Dollars)

	<u>1972</u>	<u>1977</u>	<u>Average Annual Change 1972-1977</u>	
			<u>Number</u>	<u>Percent</u>
New Haven-West Haven SMSA	\$ 376,780	\$ 374,812	-\$ 394	-0.1%
State of Connecticut	\$2,607,740	\$2,752,945	\$29,041	1.1%
Southern New England	\$8,162,933	\$8,347,282	\$36,870	0.5%

Source: U.S. Census of Retail Trade; Gladstone Associates.

New Haven-West Haven SMSA. The New Haven metropolitan area experienced a decrease in both the total number of retail establishments as well as in total retail sales between 1972 and 1977. Specifically:

- There was a net loss of 135 retail establishments during this five year period. Of these, 103 losses occurred within the City of New Haven. (Source: U.S. Census of Retail Trade)
- Paralleling this loss in establishments in the SMSA was a loss in total retail sales. Retail sales dropped from \$1072.0 million in 1972 to \$1068.0 million in 1977 -- an annual loss of 0.1 percent, or \$785,000 per year.
- A significant portion of this decline in sales is attributable to sales losses within the City of New Haven. Sales in the city declined at an annual rate of 2.7 percent (as compared with a rate of decline in establishments of 1.8 percent) for an average annual loss in sales of \$9.8 million.

-- Retail sales in the suburban areas were increasing to offset these declines. As detailed in the table below, retail sales in the balance of the SMSA increased at an annual rate of 1.3 percent or \$9 million per year.

RETAIL SALES

(In Millions of 1977 Constant Dollars)

			Average Annual Change	
	<u>1972</u>	<u>1977</u>	<u>Number</u>	<u>Percent</u>
<u>New Haven-West Haven SMSA</u>				
City of New Haven	\$ 361.1	\$ 311.9	-\$ 9.8	-2.7%
Balance of SMSA	\$ 710.9	\$ 756.1	\$ 9.0	1.3%
Total	<u>\$1,072.0</u>	<u>\$1,068.0</u>	<u>-\$ 0.8</u>	<u>-0.1%</u>

Trends in shoppers goods sales for the SMSA generally reflect the trends in total retail sales discussed above.

-- Between 1972 and 1977 SMSA shoppers goods sales dropped from \$376.8 million to \$374.8 million -- an average annual loss of 0.1 percent. These losses were concentrated in the apparel and furniture categories.

Due to disclosure problems within the general merchandise category, the Census Bureau did not publish total shoppers goods sales for the City of New Haven. From the information available and detailed below, however, it is evident that for those categories for which city sales information is available -- apparel, furniture and miscellaneous -- sales did decrease between 1972 and 1977. These losses accounted for the major portion of sales registered within the SMSA. Annual rates of decline for reported shoppers goods categories were as follows:

RETAIL SALES TRENDS^{1/}
 NEW HAVEN-WEST HAVEN SMSA
 1972-1977
 (In Thousands of 1977 Constant Dollars)^{2/}

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishments	Sales	Number	Percent	Amount	Percent
<u>GAP</u>								
General Merchandise	80	\$ 182,992	71	\$ 187,023	-2	-2.3%	\$ 806	0.4%
Apparel	310	\$ 93,349	294	\$ 87,009	-3	-1.0%	-\$1,268	-1.4%
Furniture	269	\$ 66,600	273	\$ 61,269	1	0.3%	-\$1,066	-1.6%
Subtotal	659	\$ 342,941	638	\$ 335,301	-4	-0.6%	-\$1,528	-0.4%
<u>Convenience</u>	663	\$ 407,680	609	\$ 358,748	-11	-1.6%	-\$9,786	-2.4%
<u>Eating and Drinking</u>	736	\$ 108,757	780	\$ 148,848	9	1.2%	\$8,018	7.4%
<u>Building and Hardware</u>	149	\$ 54,462	156	\$ 44,728	1	0.9%	-\$1,947	-3.6%
<u>Miscellaneous</u>	1,119	\$ 158,062	1,008	\$ 180,351	-22	-2.0%	\$4,458	2.8%
Total	3,326	\$1,071,902	3,191	\$1,067,976	-27	-0.8%	-\$ 785	-0.1%

Note: 1972 SMSA definition does not include Clinton, Wallingford and Madison which were added to SMSA definition in April 1973.

^{1/} Adjusted to reflect State Sales Tax.

^{2/} Using retail CPI and separate food CPI.

Source: U.S. Census of Retail Trade; Gladstone Associates.

SHOPPERS GOODS SALES TRENDS
 NEW HAVEN-WEST HAVEN SMSA
 1972-1977
 (In Thousands of 1977 Constant Dollars)^{1/}

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishments	Sales	Number	Percent	Amount	Percent
General Merchandise	80	\$182,992	71	\$187,023	-2	-2.3%	\$ 806	0.4%
Apparel	310	\$ 93,349	294	\$ 87,009	-3	-1.0%	-\$1,268	-1.4%
Furniture	269	\$ 66,600	273	\$ 61,269	1	0.3%	-\$1,066	-1.6%
Miscellaneous Shoppers Goods	252	\$ 33,839	304	\$ 39,510	10	4.0%	\$1,134	3.4%
Total	911	\$376,780	942	\$374,811	6	0.7%	-\$ 394	-0.1%

Note: Reflects adjustment for underreporting and State Sales Tax.

^{1/} Using retail CPI.

Source: U.S. Census of Retail Trade, 1972 and 1977; Gladstone Associates.

SHOPPERS GOODS SALES
CITY OF NEW HAVEN
1972-1977
(In Thousands of 1977 Constant Dollars)

	1972		1977		Average Annual Change, 1972-1977			
					Establishments		Sales	
	Establishments	Sales	Establishments	Sales	Number	Percent	Amount	Percent
General Merchandise	18	(D)	19	\$ 56,439	--	--	N/A	--
Apparel	144	\$50,625	121	\$ 37,765	-5	-3.2%	-\$2,572	-5.1%
Furniture	100	\$32,051	93	\$ 24,608	-1	-1.0%	-\$1,489	-4.6%
Miscellaneous Shoppers Goods	69	\$16,129	71	\$ 14,618	--	--	-\$ 302	-1.9%
Total	331	N/A	302	\$133,430	-6	-2.4%	N/A	--

Note: Reflects adjustment for underreporting and State Sales Tax.

Source: U.S. Census of Retail Trade, 1972 and 1977; Gladstone Associates.

	<u>SMSA</u>	<u>City of New Haven</u>
General Merchandise	0.4%	Not Available
Apparel	-1.4%	-5.1%
Furniture	-1.6%	-4.6%
Miscellaneous	3.4%	-1.9%

New Haven CBD. The New Haven CBD has been one of the major retail concentrations in the SMSA. As city population has decreased and suburban population increased, however, the importance of the CBD as a retailing core has substantially declined:

- In 1977 total sales in the CBD were almost matched by sales in Hamden's Magic Mile. Sales in the CBD were estimated at \$103.9 million as compared with \$103.4 million for Magic Mile.
- The number of establishments in the CBD declined from 236 in 1972 to 225 in 1977. Total sales fell from \$120.9 million to \$103.9 million -- an annual decrease in sales of 2.9 percent.
- The losses in total sales and total retail establishments was paralleled by similar sales declines in the shoppers goods category. Shoppers goods sales declined by an average of \$3.1 million annually from \$99.4 million in 1972 to \$83.9 million in 1977. Losses in establishments totaled thirteen, falling from 133 to 120. (Source: U.S. Census of Retail Trade)

DOWNTOWN NEW HAVEN RETAIL SALES

1972-1977

(In Millions of 1977 Constant Dollars)^{1/}

<u>Year</u>	<u>Total Sales</u>	<u>Shoppers Goods 2/</u>
1972	\$120.9	\$ 99.4
1977	\$103.9	\$ 83.9
Average Annual Change: 1972-1977		
Volume	-\$ 3.4	-\$ 3.1
Percent	-2.9%	-3.1%

Note: 1972 and 1977 volumes adjusted to reflect state sales tax underreporting.

1/ Adjusted by retail price indices as reported by Bureau of Labor Statistics.

2/ 1972 shoppers goods sales reported by Halcyon and RPA memorandum dated March 8, 1979.

Source: U.S. Census of Retail Trade.

State of Connecticut. The losses in retail establishments and sales within the New Haven-West Haven SMSA were not reflected at the state level.

-- Total retail sales for the state increased by 1.4 percent annually between 1972 and 1977. Over this five year period sales increased from \$7,641.0 million to \$8,172.0 million. The most significant gains occurred in the Eating and Drinking category, a 7.5 percent annual increase, and in the Miscellaneous category, a 4.8 percent annual increase.

-- These sales increases occurred despite an overall loss in the number of retail establishments, from 23,478 in 1972 to 22,701 in 1977.

Shoppers goods sales also increased during this five year period although at a somewhat slower rate than total sales. Sales in this category increased from \$2,607.7 million in 1972 to \$2,752.9 million in 1977. This represents an annual increase of \$29 million or 1.1 percent.

Major Retail Centers: A "major retail center" has been defined by the Bureau of the Census as a concentration of at least 25 retail stores located inside an SMSA. At least one of these stores must be a general merchandise store with a minimum of 100,000 s.f. of total under-roof floor space. Three major retail centers have been identified within the New Haven SMSA. These include the New Haven CBD, Magic Mile and the White Acres Shopping Center in Orange. Census information for White Acres is only available for the year 1972.

There are also several major retail centers (MRCs) which are not within the SMSA. Based on a detailed analysis of sales flows (described further below), however, it was determined that these centers do, in fact, service the retailing needs of SMSA residents. As such, it is important to present trends in sales for these areas. Specifically:

- Between 1972 and 1977 total retail sales increased at both Meriden Square and the Naugatuck Valley Mall. The respective annual rates of increase were 4.1% and 3.1%.
- Due to disclosure problems, comparisons of total sales for 1972 and 1977 are not possible for the Trumbull Shopping Park. Shoppers Goods Sales, however, remained relatively stable during this period.
- West Farms Mall did not open until 1974. In 1977, however, it registered total sales of \$134.6 million with 95% of this, or \$127.5 million, in shoppers goods sales.
- Connecticut Post experienced a significant decline in sales during this period. Total sales decreased by \$27.6 million from \$61.7 million in 1972 to \$34.1 million in 1977. (Source: U.S. Census of Retail Trade)

Southern New England. Due to changes in the definition of taxable items in Massachusetts between 1972 and 1977, it is not possible to accurately reflect trends for total retail sales in the region. It is possible, however, to discuss sales trends in the shoppers goods category during this period.

- Between 1972 and 1977 shoppers goods sales, as expressed in constant dollars, increased slightly from \$8,162.9 million in 1972 to \$8,347.3 million in 1977 -- an annual rate of increase of 0.5 percent.

2. Shoppers Goods Sales Flows - New Haven SMSA 1977

The specific sales flows within the New Haven SMSA are of particular concern in this analysis. Using shoppers surveys and Connecticut Department of Transportation short-purpose trip data (as described in the Methodology section following), sales flows (based on shoppers goods purchasing power) on a town-by-town basis were estimated for each city/town in the North Haven Mall Market Area. These flows are detailed in the tables entitled, Distribution of Shoppers Goods Purchasing Power, 1977 included at the end of this Section. These sales flows have been summarized into four general categories:

- Sales Retention. Purchasing power of SMSA residents which is spent at SMSA sales locations (referred to as metro to metro).
- Sales Outflows. Purchasing power of SMSA residents which is spent at sales locations outside the SMSA (referred to as metro to non-metro).
- Sales Inflows. Purchasing power of non-SMSA residents which is spent at sales locations within the SMSA (referred to as non-metro to metro).
- Untapped Inflow Potentials. Purchasing power of individuals living outside the SMSA which is spent at sales locations outside the SMSA (referred to as non-metro to non-metro).

RETAIL SALES TRENDS^{1/}
STATE OF CONNECTICUT
1972-1977
(In Thousands of 1977 Constant Dollars)^{2/}

	1972		1977		Average Annual Change, 1972-1977			
	Establishments	Sales	Establishment	Sales	Establishments		Sales	
					Number	Percent	Amount	Percent
<u>GAP</u>								
General Merchandise	654	\$1,287,956	571	\$1,345,392	-17	-2.5%	\$ 11,487	0.9%
Apparel	2,089	\$ 554,710	1,940	\$ 596,764	-30	-1.4%	\$ 8,410	1.5%
Furniture	1,884	\$ 487,643	2,056	\$ 486,777	34	1.8%	-\$ 173	-0.03%
Subtotal	4,627	\$2,330,309	4,567	\$2,428,933	-13	-0.3%	\$ 19,724	0.8%
<u>Convenience</u>	4,356	\$2,934,517	3,962	\$2,727,486	-79	-1.8%	-\$ 41,406	-1.4%
<u>Eating and Drinking</u>	4,848	\$ 693,861	5,169	\$ 954,109	64	1.3%	\$ 52,050	7.5%
<u>Building and Hardware</u>	1,105	\$ 435,377	1,193	\$ 513,564	18	1.6%	\$ 15,637	3.6%
<u>Miscellaneous</u>	8,542	\$1,246,907	7,810	\$1,547,878	-146	-1.7%	\$ 60,194	4.8%
Total	23,478	\$7,640,971	22,701	\$8,171,970	-156	-0.7%	\$106,199	1.4%

^{1/} Adjusted to reflect State Sales Tax.

^{2/} Converted using separate retail CPI.

Source: U.S. Census of Retail Trade; Gladstone Associates.

RETAIL SALES TRENDS
MAJOR RETAIL CENTERS
GREATER NEW HAVEN
1972-1977
(In Thousands of 1977 Constant Dollars)^{4/}

	1972 ^{1/}				1977 ^{2/}				Average Annual Change, 1972-1977							
	Total Retail	GAP	Convenience	Other	Total Retail	GAP	Convenience	Other	Total Retail Number	Total Retail Percent	GAP Number	GAP Percent	Convenience Number	Convenience Percent	Other Number	Other Percent
New Haven CBD	\$120,900	(D)	\$15,636	(D)	\$103,928	\$ 83,943	\$13,366	\$ 6,619	-\$3,394	-2.8%	N/A	--	-\$ 454	-2.9%	N/A	--
"Miracle Mile", Hamden	\$106,345	\$55,504	\$33,330	\$17,512	\$103,352	\$ 55,161	\$30,887	\$17,304	-\$ 600	-0.6%	-\$ 69	-0.1%	-\$ 489	-1.5%	-\$ 42	-0.2%
Connecticut Post Area	\$ 61,657	\$40,996	\$17,914	\$ 2,747	\$ 34,149	\$ 18,921	\$12,709	\$ 2,519	-\$5,502	-8.9%	-\$4,415	-10.8%	-\$1,041	-5.8%	-\$ 46	-1.7%
Trumbull Shopping Park	N/A	\$62,394	(D)	(D)	\$ 73,494	\$ 62,378	\$10,567	\$ 549	N/A	--	N/A	--	N/A	--	N/A	--
West Farms Area	N/A	N/A	N/A	N/A	\$134,596	\$127,487	\$ 4,926	\$ 2,183	N/A	--	N/A	--	N/A	--	N/A	--
Meriden Square Area	\$36,301	\$34,187	\$ 1,617	\$ 497	\$ 43,685	\$ 40,401	(D)	(D)	\$1,476	4.1%	\$1,243	3.6%	N/A	--	N/A	--
Naugatuck Valley Mall Area	\$ 79,489	\$61,038	\$16,945	\$ 1,506	\$ 91,995	\$ 76,777	\$14,078	\$ 1,140	\$2,502	3.1%	\$3,148	5.2%	-\$ 573	-0.9%	-\$ 73	-4.9%

Note: (D) Federal law prohibits publishing data which might disclose the operations of an individual establishment or business.

^{1/} Adjusted to reflect State Sales Tax which averaged 5.75% in 1972.

^{2/} Adjusted to reflect State Sales Tax which averaged 7% in 1977.

^{3/} These items are exempted from State Sales Tax.

^{4/} Using revised retail CPI.

Source: U.S. Census of Retail Trade, Major Retail Centers; Gladstone Associates.

SHOPPERS GOODS TRENDS^{1/}

SOUTHERN NEW ENGLAND^{2/}

1972 - 1977

(In Thousands of 1977 Constant Dollars)

	1972		1977		Average Annual Change, 1972-1977			
	<u>Establishments</u>	<u>Sales</u>	<u>Establishments</u>	<u>Sales</u>	<u>Establishments</u>		<u>Sales</u>	
					<u>Number</u>	<u>Percent</u>	<u>Amount</u>	<u>Percent</u>
General Merchandise	2,687	\$4,040,784	1,880	\$4,115,353	-161	-6.0%	\$ 14,914	0.4%
Apparel	6,191	\$1,689,143	5,847	\$1,805,344	- 69	-1.1%	\$ 23,240	1.4%
Furniture	5,558	\$1,519,288	5,823	\$1,363,258	53	1.0%	-\$ 31,206	-2.1%
Miscellaneous								
Shoppers Goods	<u>6,838</u>	<u>\$ 913,718</u>	<u>7,863</u>	<u>\$1,063,327</u>	<u>205</u>	<u>3.0%</u>	<u>\$ 29,922</u>	<u>3.3%</u>
Total	21,274	\$8,162,933	21,413	\$8,347,282	28	0.1%	\$ 36,870	0.5%

1/ Adjusted to reflect State Sales Tax.

2/ Includes Rhode Island, Massachusetts, and Connecticut.

SOURCE: U.S. Census of Retail Trade; U.S. Census P-25 Estimates; Gladstone Associates.

The purpose here is to identify where sales outflows are occurring and opportunities for stabilizing, if not improving, SMSA sales inflows.

To determine the level of sales inflows/outflows, sales to SMSA locations by SMSA and by the four mall market area, non-SMSA towns (Durham, Middlefield, Meriden and Cheshire) of origination (taken from matrices preceding), were aggregated and compared to total purchasing power in the New Haven SMSA in 1977. The specific methodology for this is described in more detail in the Methodology Section of this attachment.

On a net basis, it is evident that the SMSA is currently experiencing a net inflow of \$20.1 million. This represents 5.4 percent of total SMSA 1977 shoppers goods sales. The analysis of sales flows on a net basis, however, masks actual shopping patterns in the region. While the region enjoys sales inflows on a net basis, a portion of the region's purchasing power is being spent at sales locations outside the SMSA. The detailed sales flow analysis, summarized above, reveals that \$71.7 million of SMSA purchasing power, or 20.2%, is flowing outside the SMSA. A key issue in the future of retailing in the New Haven SMSA pertains to the possibilities for reversing current sales outflows on the part of metropolitan residents, and maintaining or increasing sales inflows from non-metropolitan residents.

SHOPPERS GOODS SALES FLOWS

NEW HAVEN SMSA

1977

<u>Sales Components</u>	<u>Volume (000)</u>
Metropolitan Shoppers Goods Sales ^{1/}	\$374,813
Sales Retention ^{2/}	\$279,827
Sales Inflows ^{3/}	<u>\$ 91,854</u>
Metropolitan Consumer Expenditures ^{4/}	\$354,701
Sales Retention ^{2/}	<u>\$282,959</u>
Sales Outflows ^{5/}	<u>\$ 71,742</u>
Net Inflow (\$91,854 ^{3/} minus \$71,742 ^{5/})	<u>\$ 20,112</u>

Note: The following footnotes key the above summary figures to the detailed sales flow matrix for 1977 which is presented in the following two pages.

- 1/ Represents the sum of all SMSA columns ("Centers Within SMSA" and "SMSA Cities/Towns") and equals sales reported by U.S. Census Bureau and adjusted for sales tax by Gladstone Associates, as noted.
- 2/ Represents sum of all data cells falling within the "SMSA Cities/Towns" rows and columns headed either "Centers Within SMSA" or "SMSA Cities/Towns."
- 3/ Difference of the first two lines by definition.
- 4/ Total of "Shoppers Goods Purchasing Power" column for "SMSA Cities/Towns" rows.
- 5/ Difference of the preceding two lines by definition.

Source: Gladstone Associates

3. Projected Shoppers Goods Sales, 1985 and 1990 Baseline Demand

Projected shoppers goods demand levels for 1985 and 1990 within the North Haven Mall Market Area were established under two principal scenarios or assumption sets. In both of these scenarios, population projections as established by the State's Office of Policy and Management were utilized, although they are judged to be on the conservative

or low side. The essential difference between the two scenarios, however, relates to prospective income growth. Under a standard analytical approach that projects future dollar values in present dollar terms (in this case, 1977 for purposes of consistency with most recent statistical data), any anticipated growth in income would represent "real" growth after accounting for any increases offset by inflationary trends. In the analyses which follow, shoppers goods demand levels, as measured by purchasing power, have been developed under both a zero percent real income growth assumption and under a one percent per annum income growth projection.

The table immediately below presents these projections for the SMSA and for those four non-SMSA towns which are within the North Haven Mall Market Area.

<u>SHOPPERS GOODS PURCHASING POWER</u>			
<u>1977-1990</u>			
<u>(In Millions of 1977 Constant Dollars)</u>			
<u>Scenario 1^{1/}</u>	<u>1977</u>	<u>1985</u>	<u>1990</u>
SMSA Towns/Cities	\$354.7	\$362.1	\$368.5
Non-SMSA ^{3/}	<u>\$ 75.4</u>	<u>\$ 79.5</u>	<u>\$ 81.9</u>
Total	<u>\$430.1</u>	<u>\$441.6</u>	<u>\$450.4</u>
<u>Scenario 2^{2/}</u>			
SMSA Towns/Cities	\$354.7	\$392.1	\$419.4
Non-SMSA ^{3/}	<u>\$ 75.4</u>	<u>\$ 86.1</u>	<u>\$ 93.2</u>
Total	<u>\$430.1</u>	<u>\$478.2</u>	<u>\$512.6</u>

1/ Assumes 0% of income growth.

2/ Assumes 1% per annum income growth.

3/ Includes Durham, Middlefield, Meriden and Cheshire only.

Source: Gladstone Associates

Sales Projections

Based on projections of purchasing power, the relative distribution patterns evidenced by the 1977 sales distributions described, the computer analysis described in the methodology section following and historical sales trends, projected sales flows into and out of the New Haven SMSA were established. These projections assume a baseline situation, that is static retail supply conditions. The detailed sales flows from cities/towns to specific sales destinations are presented in the detailed tables in the Methodology section of this attachment. A summary of these projected flows is as follows:

<u>PROJECTED SMSA SHOPPERS GOODS SALES FLOWS</u>				
<u>1985 AND 1990</u>				
	<u>Volume (Millions)</u>			
	<u>Scenario 1 ^{1/}</u>		<u>Scenario 2 ^{2/}</u>	
	<u>1985</u>	<u>1990</u>	<u>1985</u>	<u>1990</u>
SMSA Shoppers Goods Sales ^{3/}	\$368.9	\$365.6	\$399.4	\$416.1
Sales Retention ^{4/}	<u>\$287.7</u>	<u>\$292.4</u>	<u>\$311.6</u>	<u>\$332.9</u>
Sales Inflows ^{5/}	\$ 81.2	\$ 73.1	\$ 87.9	\$ 83.2
SMSA Purchasing Power ^{6/}	\$362.1	\$368.5	\$392.1	\$419.4
Sales Retention ^{4/}	<u>\$287.7</u>	<u>\$292.4</u>	<u>\$311.6</u>	<u>\$332.9</u>
Sales Outflows ^{7/}	\$ 74.4	\$ 76.0	\$ 80.5	\$ 86.5
Net Inflow (Outflow) ^{8/}	<u>\$ 6.8</u>	<u>\$(2.9)</u>	<u>\$ 7.3</u>	<u>\$(3.3)</u>

^{1/} Assumes zero percent income growth.

^{2/} Assumes one percent annual income growth.

^{3/} Assumes sales retention equals 78% of total sales in 1985 and 80% of total sales in 1990. Thus, total SMSA sales, under either scenario, equals sales retention divided by .78 for 1985 and sales retention divided by .80 for 1990.

^{4/} All purchasing power of SMSA residents that is spent at SMSA locations. Represents the sum of all data cells falling within the rows labelled "SMSA Cities/Towns" and within the columns labelled "Centers Within SMSA" or "SMSA Cities/Towns" in the respective baseline sales flow matrices shown in Attachment F.

^{5/} Difference of the preceding two lines, by definition.

^{6/} Total of "Shoppers Goods Purchasing Power" column for all rows labelled "SMSA Cities/Towns" in the respective baseline sales flow matrices of Attachment F.

^{7/} Difference of the preceding two lines, by definition.

^{8/} Sales inflows minus outflows.

Source: Gladstone Associates

In summary:

- Under a conservative zero percent income growth scenario and static retail supply conditions, SMSA sales would decrease to \$368.9 million in 1985 and \$365.6 in 1990. Outflows under this scenario would increase from \$71.7 million in 1977 to a projected \$74.4 million in 1985 and to \$76.0 million in 1990. Correspondingly, based on trend line analysis of total SMSA shoppers goods sales, resultant inflows of non-SMSA expenditures would drop from \$91.9 million in 1977 to \$81.2 million in 1985 and to \$73.1 million in 1990. Thus, the net inflow of \$20.1 million that the New Haven SMSA enjoyed in 1977 would likely drop to \$6.8 million in 1985 and reverse to a net outflow of \$2.9 million in 1990.
- Under a one percent per annum income growth assumption, SMSA sales would increase from \$399.4 million in 1985 to \$416.1 in 1990. As a result of increased purchasing power, with static supply conditions, outflows are projected to increase to \$80.5 million in 1985 and to \$86.5 million in 1990. Sales inflows, under this scenario, are projected at \$87.9 million in 1985 and \$83.2 million in 1990. Thus, net inflows would be \$7.3 million in 1985 and by 1990 there would be a forecast net outflow of \$3.3 million. In other words, the SMSA is projected to continue to rely more heavily on expenditures from SMSA residents.

Sales projections for the New Haven CBD and Magic Mile in Hamden were projected based on projected sales for the SMSA. As discussed earlier, shoppers goods sales in the CBD have been decreasing. As a result, the CBD's "share" of metro sales has also been decreasing. Sales at Magic Mile have decreased somewhat, but have remained relatively stable. Based on these past trends, sales for these specific centers have been projected as follows:

SHOPPERS GOODS SALES PROJECTIONS

1985, 1990

(In Millions of 1977 Constant Dollars)

	<u>1972</u>	<u>1977</u>	<u>1985</u>	<u>1990</u>
CBD	\$99.4	\$83.9	\$73.0	\$69.6
Magic Mile	\$55.5	\$55.2	\$55.2	\$55.2

(It should be noted that sales as displayed by the computer model print-outs do not reflect total sales for the specific centers or cities or towns. The model only projects sales generated from SMSA cities/towns and the four non-SMSA locations which are within the North Haven Mall market area -- Durham, Middlefield, Meriden and Cheshire.)

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS

NORTH HAVEN MARKET AREA

1977

(In Thousands of 1977 Constant Dollars)

	Shoppers Goods Purchasing Power	Centers With SMSA				Centers Outside SMSA					Subtotal Outside SMSA	Total	Balance Shoppers Goods Purchasing Power
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley			
North Haven	22,311	6,631	5,669	133	12,433	52	0	729	560	43	1,334	13,817	8,494
New Haven	84,720	36,705	9,035	2,249	47,989	455	467	487	261	77	1,747	49,736	34,984
Wallingford	32,182	1,025	7,145	68	8,238	32	0	4,970	2,129	121	7,252	15,490	16,692
Hamden	47,900	6,651	20,668	384	27,703	107	467	487	784	114	1,959	29,662	18,238
North Branford	9,801	1,175	1,121	43	2,339	20	0	1,981	336	19	2,356	4,695	5,106
East Haven	19,160	6,380	1,477	242	8,099	87	0	0	0	24	111	8,210	10,950
Bethany	4,188	1,427	768	105	2,300	36	0	0	37	70	143	2,443	1,745
Woodbridge	12,582	1,427	354	666	2,447	127	0	0	186	20	333	2,780	9,802
Orange	15,937	1,427	354	5,806	7,587	1,148	467	0	0	19	1,634	9,221	6,716
West Haven	42,323	9,317	591	6,586	16,494	1,659	975	0	0	34	2,668	19,162	23,161
Branford	22,961	4,197	1,477	133	5,807	52	0	0	0	0	52	5,859	17,102
Guilford	16,953	1,343	354	59	1,756	30	0	0	186	0	216	1,972	14,981
Madison	14,485	1,175	0	34	1,209	20	0	0	411	0	431	1,640	12,845
Clinton	9,199	84	0	0	84	0	0	0	0	0	0	84	9,115
Subtotal	354,701	78,964	49,013	16,508	144,485	3,825	2,376	8,654	4,890	541	20,286	164,771	189,930
Durham	4,554	0	0	0	0	6	0	1,008	859	17	1,890	1,890	2,664
Middlefield	3,028	0	0	0	0	4	0	487	1,120	29	1,640	1,640	1,388
Meriden	46,711	0	354	31	385	16	0	22,944	6,386	306	29,652	30,037	16,674
Cheshire	21,096	839	4,489	46	5,374	22	0	1,252	4,070	1,118	6,462	11,836	9,260
Subtotal	75,388	839	4,843	77	5,759	48	0	25,691	12,435	1,470	39,644	45,403	29,985
Total SMSA and Selected Non-SMSA	430,089	79,803	53,856	16,585	150,244	3,873	2,376	34,345	17,325	2,011	59,930	210,174	219,915
Other Non-SMSA	--	4,140	1,305	10,411	15,856	15,048	60,002	6,056	110,162	74,766	266,034	281,890	--
Total Center Sales	--	83,943	55,161	26,996	166,100	18,921	62,378	40,401	127,487	76,777	325,964	492,064	--

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS

NORTH HAVEN MARKET AREA

1977

(In Thousands of 1977 Constant Dollars)

	Balance Shoppers Goods Purchasing Power	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Brandford	Guilford	Madison	Clinton	Durham	Middlefield	Meriden	Cheshire	Milford	Other
North Haven	8,494	3,652	255	1,104	139	72	339	0	170	85	0	0	0	0	0	0	0	0	255	0	2,273
New Haven	34,948	1,399	18,541	700	1,049	0	1,399	0	0	2,799	1,390	700	0	0	0	0	0	0	0	700	6,298
Wallingford	16,692	2,170	500	9,848	167	140	334	0	0	0	167	334	0	0	0	0	0	1,335	334	0	1,363
Hamden	18,238	2,371	2,189	548	6,018	0	183	0	183	183	183	0	0	0	0	51	0	183	183	0	2,140
North Branford	5,106	766	255	307	51	430	357	0	0	0	0	613	85	0	0	0	0	0	0	109	1,477
East Haven	10,950	438	2,518	109	219	184	3,613	0	0	219	328	1,643	91	0	0	0	0	0	0	35	506
Bethany	1,745	70	157	35	70	0	0	593	140	52	52	0	0	0	0	0	0	0	0	392	1,764
Woodbridge	9,802	392	1,961	98	392	0	0	0	3,725	784	294	0	0	0	0	0	0	0	0	1,276	1,075
Orange	6,716	67	538	0	67	0	0	0	67	2,870	806	0	0	0	0	0	0	0	0	2,316	3,240
West Haven	23,161	232	3,938	0	0	0	212	0	0	3,938	9,033	232	0	0	0	0	0	0	0	171	1,803
Branford	17,102	171	1,710	0	171	0	1,540	0	0	0	171	10,775	590	0	0	0	0	0	0	0	4,319
Guilford	14,981	150	599	0	0	0	450	0	0	0	0	2,098	6,761	501	103	0	0	0	0	0	6,266
Madison	12,845	128	257	128	0	0	257	0	0	0	0	899	2,073	2,401	436	0	0	0	0	0	5,543
Clinton	9,115	0	91	0	0	0	0	0	0	0	0	273	343	1,115	1,750	0	0	0	0	0	44,031
Subtotal	189,930	12,006	33,509	12,877	8,543	826	8,704	593	4,285	10,880	12,433	17,567	9,945	4,017	2,289	51	0	1,569	807	4,999	1,453
Durham	2,664	0	27	187	0	0	0	0	0	0	0	27	68	23	0	746	79	54	0	0	3,835
Middlefield	1,388	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	9,171	333	0	3,835
Meriden	16,674	0	167	3,168	0	0	0	0	0	0	0	0	0	0	0	0	0	185	4,631	0	2,962
Cheshire	9,260	371	185	741	185	0	0	0	0	0	0	27	68	23	0	774	384	9,507	4,964	0	9,139
Subtotal	29,985	371	379	4,165	185	0	0	0	0	0	0	27	68	23	0	774	384	9,507	4,964	0	9,139
Total SMSA and Selected Non-SMSA	219,915	12,377	33,888	17,042	8,728	826	8,704	593	4,285	10,880	12,433	17,594	10,013	4,040	2,289	825	384	11,086	5,771	4,999	53,169
Other Non-SMSA	--	2,406	15,599	13,483	312	143	1,152	402	913	23,370	3,855	2,319	902	104	58	--	--	10,053	5,668	38,279	--
Total Sales	--	14,783	49,487	30,525	9,040	969	9,856	995	5,198	34,250	16,288	19,913	10,915	4,144	2,347	--	--	21,129	11,439	43,228	--

C. PROJECT PROFILE -- ECONOMIC CHARACTERISTICS

The following materials provide a profile of the proposed North Haven Mall, from a retail perspective. The proposed mall's size and tenant mix, expected sales volumes and operating schedules are described here.

1. Gross Leasable Area

Gross Leasable Area (GLA) is a measure of retail floor space typically used for purposes of market analyses and sales volume calculations (i.e., productivity factor X GLA = annual sales volume, where productivity factor equals annual sales per square foot). GLA is generally defined as the total floor area designed for tenant occupancy and exclusive use, including any basements, mezzanines or upper floors.^{1/}

Thus, in this definition of GLA, the mall area itself as well as areas taken up by mechanical systems and the like are excluded.

The following table outlines the breakdown of GLA for the proposed North Haven Mall.

ANTICIPATED TENANT MIX NORTH HAVEN MALL

<u>Tenant</u>	<u>GLA</u>
J.C. Penney	140,000 s.f. ^{1/}
G. Fox	190,000 s.f. ^{1/}
Sears	156,000 s.f.
Other Anchor	190,000 s.f.
Subtotal	676,000 s.f.
Mall Shops	400,000 s.f.
Service and Entertainment	24,000 s.f.
Total	1,100,000 s.f.

^{1/} Includes 30,000 s.f. of expansion space not to be built initially.

^{1/} The Urban Land Institute, Dollars and Cents of Shopping Centers, 1978.

C. Project Profile — Economic Characteristics

While most of this space, of course, would be devoted to retail activities (predominantly to what is referred to as GAF^{1/}, or Shoppers Goods), a modest amount of space in the proposed mall would likely be leased for non-retail activities and, as well, there would be a measurable amount of non-GAF retailing expected to take place here.

First, two comparably sized centers currently operated by Mall Properties were reviewed with respect to the type of "mall shop" (non-anchor store) tenants leasing space. It was found that 55 percent of these tenants were classified as Shoppers Goods establishments.

Second, interviews with representatives of each of the four proposed anchor stores (including reviews of their current store layouts and associated product lines) indicated that, on average, these anchors would devote approximately 15 percent of their floor area (GLA) to non-Shoppers Goods uses beyond what has been typical. Included in this category would be such functions as restaurant space, auto service centers and related parts sales, beauty salons, and the like.

With regard to this latter issue -- the anchor stores space inventory -- it should be noted that once the shoppers goods portion was separated out it was evaluated against demand for such items (in the form of purchasing power) and historical sales trends in the region for these types of goods, as described in Attachment D, following.

^{1/} General Merchandise, Apparel and Furnishings. See Glossary.

In the process, the U.S. Census was used for historical sales trends. These sales are reported by establishment rather than by product line so that the principal line of products that a store sells determines the single category in which the total sales for that establishment would be classified. In the case of department stores, their sales would be fully reported under the GAF (General Merchandise, Apparel and Accessories, Furnishings) category -- part of the total shoppers goods grouping -- even though they may sell certain non-shoppers goods items such as food, automotive supplies and the like.

On the other hand, the reverse is often the case. For example, large discount drug stores -- whose total sales would be reported under a convenience goods (non-shoppers goods) category -- often sell shoppers' goods items such as appliances, lawn furniture, selected clothing, jewelry and the like.

To achieve parity in comparing estimated mall sales against projected demand and/or baseline sales, two options were available:

1. adjust historical reported sales to reflect product sales only; or
2. use total establishment sales for the North Haven Mall.

Since it would not be possible to achieve acceptable accuracy under the first option the second was used although with a refinement. Specifically, as noted above, the anchor store floor area used for calculating anticipated shoppers goods sales was reduced by 15 percent from the total gross leasable area (GLA).

This figure (15 percent) reflects the amount of anchor store floor area that would be devoted to non-shoppers goods products beyond what has been historically typical for such stores, in line with the merchandising strategies these four anchors have planned for North Haven.

That is, floor areas devoted to "in-house" restaurants, beauty salons, hardware departments, tires, batteries and accessories (TBA), non-prepared gourmet foods, etc., would be substantially increased over typical floor plans for existing department stores. Thus, it would be incorrect to compare the proposed Mall anchor store sales with historical sales reporting on a strict "establishment" basis.

It should be noted, in addition, that the 190,000 s.f. GLA assigned to the G. Fox stores includes a 30,000 s.f. expansion area that would not be built initially, or perhaps at all. If this 30,000 s.f. is factored out, then the incremental non-shoppers goods adjustment is 10 percent rather than the above noted 15 percent.

Based on this information, the following breakdown of mall uses by retail type was assumed.

ANTICIPATED RETAIL MIX
NORTH HAVEN MALL

<u>Use Type</u>	<u>GLA</u>
<u>Retail</u>	
Shoppers Goods	
Anchors ^{1/}	575,000 s.f.
Mall Shops	242,000 s.f.
Total Shoppers Goods	<u>817,000 s.f.</u>
Other Retail	169,000 s.f.
Restaurants	<u>90,000 s.f.</u>
Subtotal	1,076,000 s.f.
<u>Non-Retail</u>	
Service and Entertainment	<u>24,000 s.f.</u>
Total Mall	<u>1,100,000 s.f.</u>

^{1/} Includes 30,000 s.f. of expansion space not to be built initially.

2. Anticipated Sales Volumes

Productivity factors were assigned to each of the major use categories above to derive anticipated sales volumes for the North Haven Mall, as follows:

<u>Use Type</u>	<u>Productivity Factor</u>	<u>Sales Volume (000)</u>
<u>Retail</u>		
Shoppers Goods		
Anchors	\$ 97/s.f.	\$ 55,775 ^{1/}
Mall Shops	<u>\$121/s.f.</u>	<u>\$ 29,225</u>
Total Shoppers Goods	\$104/s.f.	\$ 85,000
Other Retail	\$118/s.f.	\$ 19,942
Restaurants	<u>\$109/s.f.</u>	<u>\$ 9,810</u>
Subtotal	\$107/s.f.	\$114,752
<u>Non-Retail</u>		
Service and Entertainment	\$ 50/s.f.	<u>\$ 1,200</u>
Total Mall	\$104/s.f.	\$115,952

1/ See footnote on previous table.

It should be recognized that these productivity factors, and resultant sales volumes projections, are stated in 1977 dollars. Throughout the analyses in this study, the base retail statistics and calculations were stated in 1977 dollars in line with the most recently published census statistics for retail sales. Thus, the anticipated productivity factors and sales volumes for the mall were left in 1977 terms to remain consistent with that base data.

The sales forecast described above were based on careful examination of the following factors:

- consumer expenditure patterns affecting sales inflows, outflows, and intraregional expenditures;
- the current and anticipated composition of area retail markets in light of the supply of shoppers goods establishments in metropolitan New Haven;

- comparable indexes of sales associated with regional malls similar to that proposed for the North Haven center, as well as malls operating within the New Haven metro or other nearby Connecticut markets; and
- careful examination of sales productivity (a key measure of retail volumes) that can be anticipated at a major regional center such as that proposed for North Haven.

A thorough analysis of current retail market conditions in the New Haven region was initially conducted to understand the competitive setting into which the North Haven Mall would be inserted and the principal market area on which the mall would likely draw given such factors as driving times and location of competing centers. Combined with evaluations of current and prospective retail sales -- for the metro and its two key retail centers (New Haven CBD and the Magic Mile in Hamden) -- the potential sales performance of the mall could be judged. These evaluations and the approach behind them are described on pages 22-44 of this report.

As noted further below, specific sales volumes estimated for the mall were based on: industry-wide averages for similar malls; experience of other selected Connecticut centers; and consideration of the specific mix of mall shops anticipated in North Haven. These factors were all used, however, in the context of current and anticipated retail supply/demand conditions at play within the New Haven region.

As a reflection of these factors, the retail analyses here are based on an overall productivity of \$104 per square foot including both shoppers goods and non-shoppers goods space.

The four anchor stores are expected to achieve a productivity of about \$97 per square foot -- a level approximately 45 percent higher

than the median for similar stores as reported in Dollars and Cents of Shopping Centers, published by the Urban Land Institute. This projection is related directly to those individual anchor stores specifically programmed for the North Haven Mall and the performance they have achieved in similar centers elsewhere in New England. These sales projections are also in line with independent analyses carried out by the anchor stores themselves.

Similarly, a higher than average level of productivity is anticipated for shoppers goods mall stores. The analysis is keyed to a level of \$121 per square foot, and is based on detailed examination of the merchandise profile -- i.e., store types -- anticipated within the mall shops and their associated productivity levels as reported in the above referenced ULI data.

More specifically, in relating these productivity expectations to levels attained in other centers, the forecasts here are 36 to 45 percent higher than might be otherwise considered a "norm." These comparisons may be seen immediately below with reference both to anchor stores and mall shops in general.

<u>Store Type</u>	<u>Sales Productivity</u>		
	<u>North Haven Estimate</u>	<u>Median For Other Malls</u>	<u>Percent Difference</u>
Anchor Stores	\$ 97	\$67	45%
Mall Stores	\$121	\$89	36%

As a further comparison, the sales and related productivity experience of several retail centers in Connecticut were assessed.

MAJOR RETAIL CENTERS
ESTIMATED PRODUCTIVITY
(In 1977 Constant Dollars)

<u>Center</u>	<u>Total Size (estimated)</u>	<u>1977 Sales</u>	<u>Implied Productivity</u>
Magic Mile	1,000,000	\$103,352	\$103
Connecticut Post	800,000	\$ 34,149	\$ 43
Trumbull	834,000	\$ 73,494	\$ 88
West Farms <u>1/</u>	1,200,000	\$134,596	\$112
Meriden Square	545,000	\$ 43,685	\$ 80

1/ Includes Corbins Corner Parkade estimated at about 200,000 s.f.

Source: U.S. Census of Retail Trade; Gladstone Associates.

As can be seen, there is a wide range of sales performance represented here with the productivity estimates for the North Haven Mall falling very much at the high end of these comparative figures.

Components of Projected Sales for North Haven

The higher level of sales productivity reflected for the proposed North Haven Mall is in direct response to its location and the type of stores to be included. A corollary consideration in this respect also pertains to the market character of regional shopping elsewhere in the study area. As a result of these considerations, the analysis anticipates:

- retaining a substantial proportion of sales that would otherwise "leak" from the metropolitan area;
- drawing sales inflow into the metropolitan area from adjoining underserved towns; particularly Cheshire, Durham, and Middlefield; and
- attracting, through transfers or diversions, intra-metropolitan area sales that might ordinarily have gone into other metro area shopping districts and centers.

The composite effect of these discrete sales components or "demand segments" is directly reflected in the higher sales productivity that has been attributed to the proposed North Haven Mall. As a result, the three sales components -- i.e., improved sales inflow, greater retention of sales outflows, and increased attractiveness for intrametropolitan area sales transfers -- have resulted in a shoppers goods sales forecast of approximately \$85 million based on the aforementioned considerations of market area, competing centers, and productivity factors.

3. Operating Schedule

At the present time, a 1985 opening is anticipated for the North Haven Mall. During 1986 it is expected that full occupancy will be achieved. Therefore, 1987 would be the first entire calendar year during which the Mall would operate at full occupancy.

Productivity factors for the tenant stores would not be expected to achieve projections until, perhaps, 1988 or 1989. In their first year of operations, it would be likely that retail tenants would experience productivity at perhaps 80 percent of anticipated levels working up to 100 percent within two years.

Nevertheless, full productivity and occupancy factors have been assumed for 1985, thus overstating retail impacts for that year.

D. Methodology For Retail Analysis

D. METHODOLOGY FOR RETAIL ANALYSIS

1. Adjustment to Historical Retail Sales, 1972 and 1977

Retail sales for geographic areas and major retail centers are reported every five years by the Bureau of the Census. The most recent information published is for the year 1977 and previous to that for the year 1972. Sales data as reported for these two years, however, are not strictly comparable. The 1972 sales statistics included two items not included in the 1977 data. The Census Bureau lists these two items as follows:

1. Sales taxes collected from customers and forwarded to taxing authorities; and
2. Carrying charges or other charges for credit.

The Census Bureau further states that these items were substantially underreported in the 1972 Census. These reported figures in 1972 were approximately \$10 billion for the United States as a whole. Adjustments were needed, therefore, in order to compare these with 1977 sales data which, as noted, did not include these elements.

The adjustments were made by including estimates for sales tax in 1972 and 1977 sales estimates because the total price a consumer must pay for retail goods includes sales taxes as well as the base price of the good itself. At the same time, carrying charges were excluded from these retail sales estimates because they are not necessarily part of the total retail price which a consumer must pay. The finance charge is a reflection of a consumer's choice of how he/she wishes to pay for the good. It is considered a financial service rather than a retail item.

Estimate of 1972 Retail Sales: The purpose of the adjustments (detailed below) applied to reported 1972 retail sales is to have an estimate of retail sales, exclusive of carrying charges, which reflect the costs of retail goods as well as any applicable state sales tax.

As mentioned above, the Census Bureau estimated that reported carrying charges and sales taxes amounted to about \$10 billion in 1972 for the entire United States. This represents 2.3 percent of all retail sales in the U.S. The average sales tax rate in the United States was about 4.60 percent and in the State of Connecticut 5.75 percent.

Connecticut retail sales for 1972 including state sales taxes were then estimated as follows:

$$S_a = S_r \left(1 - \left(\frac{T_s}{T_{us}} \times C_r \right) \right) (1.0575)$$

Where:

- S_a = Adjusted 1972 retail sales
- S_r = Reported 1972 retail sales
- T_s = Average 1972 state sales tax
- T_{us} = Average 1972 U.S. sales tax
- C_r = Census Bureau estimate of all carrying charges and sales taxes as a percent of total U.S. retail sales.

Estimate of 1977 Sales: Retail sales for 1977 as reported by the Bureau of the Census do not include state sales tax. In order to include the Connecticut state sales tax of 7.0 percent, the following adjustment was made.

$$S_{a_1} = S_{r_1} (1.070)$$

Where:

- S_{a_1} = Adjusted 1977 retail sales
- S_{r_1} = Reported 1977 retail sales

Exceptions to Above Adjustments: Automotive dealers and gasoline service station sales were excluded entirely from the analysis. Food and drugs are included in the sales estimates for 1972 and 1977 but were not considered as taxable items.

Conversion of 1972 Retail Sales into 1977 Constant Dollars: In order to discount the effects of inflation when comparing 1972 and 1977 sales figures, it was necessary to express 1972 information in 1977 dollars. The Consumer Price Index (CPI) is published by the Bureau of Labor Statistics and is based on the prices of various items selected to be representative of all consumer goods and services. Separate indices are published for particular retail items.

The retail categories of specific concern in this analysis are those that make up Shoppers Goods Sales -- general merchandise, apparel, furniture and miscellaneous shopping goods. The separate indices for "Apparel Commodities" and "Home Furnishings" were used directly to convert the respective 1972 data into 1977 constant dollars. Separate indices for General Merchandise and Miscellaneous sales are not available. An average of the apparel and furnishings indices was therefore developed and applied as appropriate.

INDICES

	<u>Full CPI</u>	<u>General Merchandise^{1/}</u>	<u>Apparel Commodities</u>	<u>Home Furnishings</u>
1972	125.3	118.2	122.7	113.6
1973	133.1	121.5	127.1	115.8
1974	147.7	130.9	136.1	125.6
1975	161.2	139.3	141.2	137.4
1976	170.5	144.4	145.8	142.9
1977	185.4	149.6	151.6	147.6
1978	195.4	155.0	155.7	154.3

1/ Derived from indices for Apparel Commodities and Home Furnishings.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

2. Purchasing Power

Purchasing power is here defined as that portion of income which is available to spend on retail goods. The purchasing power in a particular region is a function of that region's population and income.

The methods for deriving population and income for the New Haven region are detailed below. In addition, the methodology for deriving purchasing power estimates -- that percent of a region's total income which is available for expenditures on retail goods and services -- is also presented.

Population Projections

Population counts for all cities and towns for the years 1960, 1970 and 1980 were taken from Census data issued by the Bureau of the Census, Department of Commerce. Population projections for cities and towns within the State of Connecticut are those which have been developed by the State of Connecticut, Office of Policy and Management and published in June, 1982. These projections rely on a cohort-component model which incorporates births, deaths and migration. The initial set of projections was reviewed by local and state planning agencies and modifications were made when deemed necessary. As a result, a "modified trend" set of population projections was developed which includes adjustments based on analyses of such items as persons per household, types of available land, current and future land use, housing development patterns, new transportation facilities and other construction, water and sewer extension, etc.

Income Projections

Income growth in the New Haven region will be dependent on national economic conditions as well as such conditions in the New Haven area itself. Since national economic policies and their subsequent effects on the local economy cannot be predicated with certainty, two scenarios of potential income growth have been developed. Under Scenario 1, it has been conservatively estimated that, discounting the effects of inflation, there will be no real growth in per capita income through 1990. This estimate reflects the experience of the region during the last recession (1974-1976).

On the other hand, there is evidence which indicates that real income growth in the New Haven region is likely to increase by at least one percent annually over the next ten years -- Scenario 2. For instance, between 1969 and 1979, per capita income in the region increased at a rate of close to one percent annually despite the recessionary impacts of the period around 1976 and high rates of inflation through the rest of the decade. In fact, thirteen out of the eighteen communities in the study area showed real income growth in excess of one percent annually with several near or above two percent annually. In addition, the number of employed persons in the New Haven Labor Market Area has increased significantly over the last several years. From 1976 to 1980, total employment in the region has increased by 4,403 jobs per year for an average annual increase of 2.5 percent. Employment projections prepared by the Connecticut Department of Transportation indicate that employment in the New Haven region is expected to grow by 1.1 percent annually through 1990.

Aggregate Income

Growth in aggregate income is a function of both increases/decreases in population as well as any change in real per capita income. Aggregate income has been estimated by multiplying regional population by regional per capita income estimates for any given year.

Estimate of Shoppers Goods Purchasing Power

For purposes of this analysis, the specific concern is with shoppers goods purchasing power in the New Haven region. That is, the dollars in the region available for shoppers goods expenditures. Shoppers goods have been defined to include general merchandise, apparel, furniture and miscellaneous shoppers goods. The critical point in estimating shoppers goods purchasing power is the determination of what percent of aggregate income in the region is actually available for such expenditures. Such a ratio is not readily available in published form and must be derived by identifying -- in the context of larger geographic areas -- an "equilibrium point" where purchasing power of individuals living within that area is judged to be in balance with actual sales records. It is important to choose a geographical area similar to the particular one under study.

The Southern New England region, consisting of Connecticut, Massachusetts, and Rhode Island, was selected as being most representative of a region in "equilibrium" based on the following premises:

- the overall economic base of this large multi-state region shares similar characteristics with its sub-areas; and
- on balance, dollars spent outside the region by persons living within the area are offset or balanced by dollars spent within the region on the part of individuals living outside the area.

Shoppers goods sales as a percent of aggregate income for this Southern New England region were examined for the years 1972 and 1977. Expressed in 1977 constant dollars, shoppers goods sales represented 13.6 percent of aggregate income at both these points in time.

RETAIL SALES AS A PERCENT OF INCOME^{1/}
SOUTHERN NEW ENGLAND^{2/}
1972 - 1977
(In 1977 Constant Dollars)^{3/}

	<u>1972</u>		<u>1977</u>	
	<u>Number</u>	<u>As a Percent Aggregate Income</u>	<u>Number</u>	<u>As a Percent Aggregate Income</u>
Population	\$ 9,694,132	--	\$ 9,755,154	--
Per Capita Income	\$ 6,170	--	\$ 6,307	--
Aggregate Income (000's)	\$59,812,794	--	\$61,525,756	--
<u>Shoppers Goods Sales (000's)</u>				
General Merchandise	\$ 4,040,784	6.8%	\$ 4,115,353	6.7%
Apparel	\$ 1,689,143	2.8%	\$ 1,805,344	2.9%
Furniture	\$ 1,519,288	2.5%	\$ 1,363,258	2.2%
Miscellaneous Shoppers Goods	\$ 913,718	1.5%	\$ 1,063,327	1.7%
Total	\$ 8,162,933	13.6%	\$ 8,347,282	13.6%

1/ Adjusted to reflect State Sales Tax.

2/ Includes Rhode Island, Massachusetts and Connecticut.

3/ Converted using total CPI for income and retail CPI for sales.

Source: U.S. Census of Retail Trade; U.S. Census P-25 Estimates; Gladstone Associates.

Projections of purchasing power to 1985 and 1990 for the New Haven region have used 13.5 percent times aggregate income to estimate shoppers goods purchasing power.

3. Sales Flows, 1977

The various types of sales flows in the New Haven-West Haven SMSA are of particular interest to this analysis. Specifically, for each city and town within the SMSA and for the four non-SMSA communities which are within the North Haven Mall market area, sales flows on a town-by-town basis were evaluated. That is, given the 1977 shoppers goods purchasing power for each city/town under study, the sales destination of these dollars was determined. These sales destinations were identified as eight major retail centers (three within the SMSA boundaries) and 19 specific city/towns (14 in the New Haven SMSA) and are detailed in the table entitled Distribution of Purchasing Power, 1977, a matrix of 380 separate cells which appears at the end of this section. The dollars which could not be identified as going to one of these locations were assumed to flow to other non-SMSA locations, hence an Other column. The specific methodology is described further below.

Several types of sales flows have been identified for purposes of this analysis. These are listed below and are defined in the Retail Trends Section, and in the glossary:

- Sales Retention
- Sales Outflows
- Sales Inflows
- Untapped Inflow Potentials

An analysis of these flows was undertaken for the year 1977 (the most recent year for which reported sales are available) in order to project sales flows for 1985 and 1990 with and without the North Haven Mall.

Sales Flows to Major Retail Centers

The first step in detailing New Haven SMSA sales flows was to determine major sales destinations of residents' purchasing power. First, eight major retail centers within a one-hour drive of the New Haven region were identified. These include:

- SMSA Centers: New Haven CBD; Magic Mile in Hamden; and White Acres in Orange.
- Non-SMSA Centers: Connecticut Post in Milford; Trumbull Shopping Park in Trumbull; Meriden Square in Meriden; West Farms Mall in West Hartford; and Naugatuck Valley Mall in Waterbury.

Estimates of total 1977 shoppers goods sales for each of these major retail centers (MRC), with the exception of White Acres, were taken from the U.S. Census of Retail Trade, Major Retail Centers, 1977, and adjusted to reflect a state sales tax of 7 percent. White Acres was not classified as an MRC in 1977. An estimate of 1977 shoppers goods sales for this center was taken from a memo dated March 8, 1979 from the Regional Planning Agency of South Central Connecticut to Regional Planning Agency delegates. These sales estimates were projected from 1972 sales information published by the Bureau of the Census.

It was then necessary to determine, for each major retail center, the city/town of sales origination. That is, the amount of sales that each MRC draws from each town in the study area. Several levels of analysis were undertaken here. First, shoppers surveys were conducted at the following centers: Miracle Mile, Trumbull Shopping Park and Meriden Square. (Incomplete data was obtained, but not used from a shoppers' survey conducted at West Farms.) A sample questionnaire and tabulated results are included. A major assumption underlying the

use of these surveys is that those individuals surveyed are representative of all shoppers at that particular center and that each shopper spends approximately the same amount of money per trip. It was also assumed that shopping patterns in the Spring of 1980 were not dramatically different from shopping patterns in 1977. This being the case, the origination of sales to each MRC was distributed relative to the distribution of residences of the shoppers surveyed. This is, if 13 percent of the shoppers surveyed at Magic Mile lived in Wallingford, then 13 percent of shoppers goods sales at Magic Mile was assumed to be made by residents of Wallingford.

For downtown New Haven the results of the shoppers surveys conducted by Halcyon, Ltd. in 1978 as part of the study for the New Haven Central Business District (CBD) entitled, An Analysis of Market Potentials, were used. The results of this survey, which pertained to the residence of the shoppers, were applied to CBD reported sales in the manner described above -- the percent distribution of residence of shoppers was applied against reported CBD sales to arrive at sales by place of origin.

Survey information was not available for White Acres, Connecticut Post, West Farms and Naugatuck Valley Mall. Trade areas for each center were established using the following: short trip information generated by the Connecticut Department of Transportation (Connecticut DOT), the location of competitive centers, major highway routes and estimated driving times.

DOT trip data was analyzed for the four towns in which the above mentioned centers are located (Orange, Milford, West Hartford and Waterbury) and a distribution matrix by the city/town of origination was developed. (The DOT short purpose trip distribution was assumed to

be similar to the distribution of sales origination for these centers.) This percent distribution matrix was then applied, similar to the method described previously, to reported sales for each center. For example, it was determined that West Haven was within the trade area for Connecticut Post Shopping Center. Of all short purpose trips ending in the Town of Milford (from Connecticut DOT), 9 percent originated in West Haven. It was, therefore, assumed that of the center's \$18.9 million in shoppers goods sales, 9 percent or \$1.7 million, is generated from shoppers residing in West Haven.

For each town in the study area, an estimate of shoppers goods purchasing power spent at the identified major retail centers was developed. This distribution of purchasing power follows in the table entitled Distribution of Shoppers Goods Purchasing to Major Retail Centers, 1977.

Using the town of North Haven as an example:

- 1977 shoppers goods purchasing power was estimated at \$22,311,000; and
- based on shoppers surveys and DOT short-purpose trip data, it was estimated that \$6,631,000 was spent in the New Haven CBD; \$5,669,000 of Magic Mile, and \$133,000 at White Acres.

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER
TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA

1977

(In Thousands of 1977 Constant Dollars)

	Shoppers Goods Purchasing Power	Centers Within SMSA			Subtotal SMSA
		New Haven CBD	Miracle Mile	White Acres	
North Haven	\$22,311	\$ 6,631	\$ 5,669	\$ 133	\$ 12,433
New Haven	\$84,720	\$36,705	\$ 9,035	\$ 2,249	\$ 47,989
Wallingford	\$32,182	\$ 1,025	\$ 7,145	\$ 68	\$ 8,238
Hamden	\$47,900	\$ 6,651	\$20,668	\$ 384	\$ 27,703

Sales Flows to Cities and Towns

Approximately 50 percent of the purchasing power within the New Haven region can be accounted for by sales to the identified major retail centers. The balance of the area's purchasing power is spent in smaller centers and free-standing stores both inside and outside the SMSA boundaries. A method similar to the one described immediately above was used to distribute the remaining shoppers goods purchasing power among cities and towns in the New Haven region. Short-purpose trip data from Connecticut DOT were analyzed, and a matrix was developed. This matrix detailed, for each city and town in the North Haven Mall Market Area, the percent distribution of short-purpose trips by origin and destination. It was assumed that this percent distribution matrix of short-purpose trips mirrored expenditure patterns by place of origin for the market area. That is, if 4 percent of the short-purpose trips originating in North Haven ended in Hamden, then 4 percent of the purchasing power of North Haven, after accounting for sales to the major retail centers, was assumed to be spent in Hamden (exclusive of Magic Mile).

A matrix detailing estimated expenditures by city/town of origin to a destination within the New Haven region was developed from the percent distribution matrix described above. Purchasing power which could not be accounted for by sales to major retail centers or the designated cities/towns was assumed spent in sales locations beyond the New Haven region's boundaries and are shown under the "Other" column of detailed matrices. The 1977 sales flows to the various cities and towns appear in the table entitled Distribution of Balance of Shoppers Goods Purchasing Power to Towns, 1977.

Tests for Reasonableness

As mentioned previously, the distribution of purchasing power of study area towns to major retail centers and other city/town sales destinations was based on shoppers surveys and traffic data generated by the Connecticut Department of Transportation.

These shoppers surveys were conducted directly in relation to retail shopping patterns so that results of these surveys are directly reflective of where people are shopping. The DOT data, on the other hand, deals with non-shopping as well as shopping travel patterns and thus is not solely attuned to where people go to shop. That is, the particular trip information used here -- labelled "short purpose trip" data -- is one of five major classifications used by Connecticut DOT. The other four groupings (and therefore excluded from the short-purpose trip data) are: Home Base to Work; Long-Social and Recreational; Trucks; and Non-home Base (i.e., trip originates from other than place of residence).

Within the Short-Purpose Trip classification are included the following subcategories:

- Personal Business
- Medical/Dental
- Dining Out
- Civic/Religious
- Convenience Shopping
- Shopping
- Passenger Serving (e.g., taking someone to a train or bus); and
- Other Short Trips.

Recognizing that there are non-shopping trips included here and that this information was used to help establish where retail dollars were flowing (both origination and destination), the question arises as to whether there are any particular biases in this data base and how that might influence the analysis. Considering both the type of data that are and are not included, it is judged that the non-shopping

trips in the short-purpose category would tend to be of shorter range or more locally confined than would shopping of the type under consideration here. Thus, there may be some bias toward understating the distance people are traveling for retail goods.

In turn, this sort of bias -- to the extent it does exist -- would tend to underestimate the level of retail sales leakage that is occurring and, therefore, subject to recapture.

To test the reasonableness of the sales distribution generated by these analyses several relationships were examined and marginal adjustments made where deemed necessary. The time/distance relationships between towns of purchasing power originates and each sales destinations (major retail centers and the cities and towns in the North Haven Mall market area), as well as the implied market areas for the various retail concentrations and the location of competitive sales locations in and around the SMSA were carefully examined in order to assess the reasonableness of the distribution matrix.

Two illustrations of the results of this process are shown below -- one looking at the Town of Hamden in terms of where its residents spend their retail dollars (according to the sales distribution matrix) and the other looking at the Town of Hamden as a sales destination and where these sales originate (again, according to the sales distribution matrix).

- It was estimated that, in 1977, the residents of Hamden spent \$47.9 million on shoppers goods in the following locations:

Magic Mile	43%*
New Haven CBD	<u>14%</u>
Subtotal	57%
Other Identified Shopping Centers	<u>5%</u>
Subtotal	62%
Hamden Other Than Magic Mile	13%*
Other Metro Towns	<u>12%</u>
Subtotal	87%
Other Locations Outside the Metro	<u>13%</u>
Total	100%

- As reported in the U.S. Census of Retail Trade, the Town of Hamden registered \$64.2 million in shoppers goods sales. It was estimated that the people making these expenditures came from the following towns:

Hamden	42%
New Haven	<u>16%</u>
Subtotal	58%
Other Metro Towns	<u>32%</u>
Subtotal	90%
Non-Metro Towns	<u>10%</u>
Total	100%

As anticipated, these figures reflect that a high percentage of Hamden residents' expenditures are retained within the town (43%* + 13%* = 56%) and that two fifths of Hamden's sales come from Hamden residents.

At the same time, dollars spent outside the metro by Hamden residents are at a reasonable 13 percent (illustratively, this would amount to expenditures of about \$440 per year for a household with a gross income of \$25,000). Conversely, dollars coming to Hamden from outside the metro represent about 10 percent of its annual sales.

Beyond the above described tests for reasonableness, these sales flow distribution estimates were checked against (and adjusted where appropriate) actual sales reported through the U.S. Census. For instance, in the example described above shoppers goods sales were a known factor so that, as purchasing power for each town was distributed, the results had to "equate" to the reported sales figures for each destination. Calibrations made as a result of this check ranged from zero percent to five percent.

4. SMSA Shoppers Goods Sales Projections - Baseline

Shoppers goods sales in the New Haven SMSA in 1985 and 1990 will be a function of regional purchasing power, the availability or supply of retailing opportunities, and particular consumer shopping patterns. Purchasing power in the area was projected under two scenarios -- assuming zero percent and one percent annual growth rates in per capita income as described in Section II preceding. Under a baseline situation (no North Haven Mall), it was assumed that there would be no major additions to the supply of retail space through 1990. It was also assumed that future shopping patterns and sales trends would continue to reflect past experience. Consequently, the sales distribution patterns evidenced by the 1977 sales distributions, described previously, would remain relatively unchanged.

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA

1977
(In Thousands of 1977 Constant Dollars)

	Shoppers Goods Purchasing Power	Centers With SMSA				Centers Outside SMSA					Subtotal Outside SMSA	Total	Balance Shoppers Goods Purchasing Power
		New Haven CBD	Miracle Mile	White Acres	Subtotal SMSA	Connecticut Post	Trumbull Shopping Park	Meriden Square	West Farms	Naugatuck Valley			
North Haven	22,311	6,631	5,669	133	12,433	52	0	729	560	43	1,384	13,817	8,494
New Haven	84,720	36,705	9,035	2,249	47,989	455	467	487	261	77	1,747	49,736	34,984
Wallingford	32,182	1,025	7,145	68	8,238	32	0	4,970	2,129	121	7,252	15,490	16,692
Hamden	47,900	6,651	20,668	384	27,703	107	467	487	784	114	1,939	29,662	18,238
North Branford	9,801	1,175	1,121	43	2,339	20	0	1,981	336	19	2,356	4,695	5,106
East Haven	19,160	6,380	1,477	242	8,099	87	0	0	0	24	111	8,210	10,950
Bethany	4,188	1,427	768	105	2,300	36	0	0	37	70	143	2,443	1,745
Woodbridge	12,582	1,427	354	666	2,447	127	0	0	186	20	333	2,780	9,802
Orange	15,937	1,427	354	5,806	7,587	1,148	467	0	0	19	1,634	9,221	6,716
West Haven	42,323	9,317	591	6,586	16,494	1,659	975	0	0	34	2,668	19,162	23,161
Branford	22,961	4,197	1,477	133	5,807	52	0	0	0	0	52	5,859	17,102
Guilford	16,953	1,343	354	59	1,756	30	0	0	186	0	216	1,972	14,981
Madison	14,485	1,175	0	34	1,209	20	0	0	411	0	431	1,640	12,845
Clinton	9,199	84	0	0	84	0	0	0	0	0	0	84	9,115
Subtotal	354,701	78,964	49,013	16,508	144,485	3,825	2,376	8,654	4,890	541	20,286	164,771	189,930
Durham	4,554	0	0	0	0	6	0	1,008	859	17	1,890	1,890	2,664
Middlefield	3,028	0	0	0	0	4	0	487	1,120	29	1,640	1,640	1,388
Meriden	46,711	0	354	31	385	16	0	22,944	6,386	306	29,652	30,037	16,674
Cheshire	21,096	839	4,489	46	5,374	22	0	1,252	4,070	1,118	6,462	11,836	9,260
Subtotal	75,388	839	4,843	77	5,759	48	0	25,691	12,435	1,470	39,644	45,403	29,985
Total SMSA and Selected Non-SMSA	430,089	79,803	53,856	16,585	150,244	3,873	2,376	34,345	17,325	2,011	59,930	210,174	219,915
Other Non-SMSA	--	4,140	1,305	10,411	15,856	15,048	60,002	6,056	110,162	74,766	266,034	281,890	--
Total Center Sales	--	83,943	55,161	26,996	166,100	18,921	62,378	40,401	127,487	76,777	325,964	492,064	--

DISTRIBUTION OF SHOPPERS' GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS

NORTH HAVEN MARKET AREA

1977

(In Thousands of 1977 Constant Dollars)

	Balance Shoppers Goods Purchasing Power	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Brantford	Guilford	Madison	Clinton	Durham	Middlefield	Meriden	Cheshire	Milford	Other
North Haven	8,494	3,652	255	1,104	339	72	339	0	170	85	0	0	0	0	0	0	0	0	255	0	2,223
New Haven	34,948	1,399	18,541	700	1,049	0	1,399	0	0	2,799	1,399	700	0	0	0	0	0	0	0	700	6,298
Wallingford	16,692	2,170	500	9,848	167	140	334	0	0	0	167	334	0	0	0	0	0	1,335	334	0	1,363
Hamden	18,238	2,371	2,189	548	6,018	0	183	0	183	183	183	0	0	0	0	51	0	183	183	0	6,014
North Branford	5,106	766	255	307	51	430	357	0	0	0	0	613	85	0	0	51	0	51	0	0	2,140
East Haven	10,950	438	2,518	109	219	184	3,613	0	0	219	328	1,643	93	0	0	0	0	0	0	109	1,477
Bethany	1,745	70	157	35	70	0	0	593	140	52	52	0	0	0	0	0	0	0	35	35	506
Woodbridge	9,802	392	1,961	98	392	0	0	0	3,725	784	294	0	0	0	0	0	0	0	0	392	1,764
Orange	6,716	67	538	0	67	0	0	0	67	2,820	806	0	0	0	0	0	0	0	0	1,276	1,075
West Haven	23,161	232	3,938	0	0	0	212	0	0	3,938	9,033	232	0	0	0	0	0	0	0	2,316	3,240
Brantford	17,102	171	1,710	0	171	0	1,540	0	0	0	171	10,775	590	0	0	0	0	0	0	171	1,803
Guilford	14,981	150	599	0	0	0	450	0	0	0	0	2,098	6,761	501	103	0	0	0	0	0	4,319
Madison	12,845	128	257	128	0	0	257	0	0	0	0	899	2,073	2,401	436	0	0	0	0	0	6,266
Clinton	9,115	0	91	0	0	0	0	0	0	0	0	273	343	1,115	1,750	0	0	0	0	0	5,543
Subtotal	189,930	12,006	33,509	12,877	8,543	826	8,704	593	4,285	10,880	12,433	17,567	9,945	4,017	2,289	51	0	1,569	807	4,999	44,031
Durham	2,664	0	27	187	0	0	0	0	0	0	0	27	68	23	0	746	79	54	0	0	1,453
Middlefield	1,388	0	0	69	0	0	0	0	0	0	0	0	0	0	0	28	305	97	0	0	3,835
Meriden	16,674	0	167	3,168	0	0	0	0	0	0	0	0	0	0	0	0	0	9,171	333	0	3,835
Cheshire	9,260	371	185	741	185	0	0	0	0	0	0	0	0	0	0	0	0	185	4,631	0	2,962
Subtotal	29,985	371	379	4,165	185	0	0	0	0	0	0	27	68	23	0	774	384	9,507	4,964	0	9,139
Total SMSA and Selected Non-SMSA	219,915	12,377	33,888	17,042	8,728	826	8,704	593	4,285	10,880	12,433	17,594	10,013	4,040	2,289	825	384	11,086	5,771	4,999	53,169
Other Non-SMSA	--	2,406	15,599	13,483	312	143	1,152	402	913	23,370	3,855	2,319	902	104	58	--	--	10,053	5,668	38,229	--
Total Sales	--	14,783	49,487	30,525	9,040	969	9,856	995	5,198	34,250	16,288	19,913	10,915	4,144	2,347	--	--	21,129	11,439	43,228	--

Shoppers goods sales for the SMSA, were projected based on projected purchasing power and past sales trends in the area.

PROJECTED SMSA SHOPPERS GOODS SALES

1985 and 1990

(In Millions of 1977 Constant Dollars)

	<u>1985</u>	<u>1990</u>
Scenario 1 ^{1/}	\$368.9	\$365.6
Scenario 2 ^{2/}	\$399.4	\$416.1

1/ Assumes zero percent income growth.

2/ Assumes one percent annual income growth.

Shoppers goods sales for the New Haven CBD and the Magic Mile shopping strip in Hamden were projected based on past sales trend information for 1972 and 1977 (as published by the Bureau of the Census). These two major retail centers (MRCs) are the only two SMSA centers for which census information is available for more than one point in time. Sales trends for these centers, therefore, can be analyzed and projected independently. These sales trends for the years 1972 and 1977 were analyzed and used to project sales for 1985 and 1990 on a modified trend line basis. Implicit in this analysis are the sales flows originating from the individual SMSA cities and towns. Shoppers goods sales for the New Haven CBD and Magic Mile were projected as follows:

SHOPPERS GOODS SALES PROJECTIONS

1985, 1990

(In Millions of Constant 1977 Dollars)

	<u>1985</u>	<u>1990</u>
New Haven CBD	\$73.0	\$69.6
Magic Mile	\$55.2	\$55.2

Detailed Sales Flows Analysis

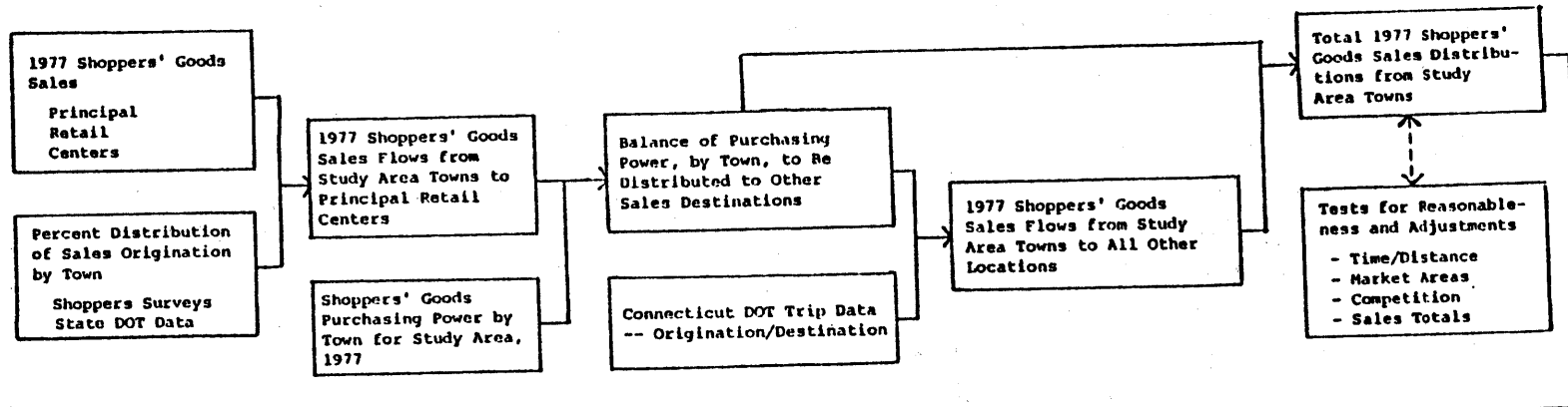
Projections of purchasing power for the North Haven Mall Market Area and estimates of shoppers goods sales for those areas mentioned above were used to develop a computer model which would project detailed sales flows -- by city/town of origination to sales destinations -- for the designated MRCs and cities and towns for 1985 and 1990. (Purchasing power which would be spent in other sales locations is accounted for in the "Other" column.)

This model assumes that the 1977 percent sales distribution evidenced in the analysis of 1977 sales flows will remain unchanged in 1985 and 1990 under a baseline situation. It should also be noted that this computer analysis details only sales originating from within the North Haven Mall Market Area and is unable to project the distribution and level of sales originating from other cities or towns. For example, while total SMSA sales have been projected at \$368.9 million for 1985 and \$365.6 million for 1990, under a zero percent income growth scenario, sales originating from the North Haven Mall Market Area and generated from the detailed sales flow analyses amount to \$299.6 in 1985 and \$304.8 in 1990, or 81 percent and 83 percent respectively of total projected SMSA sales. In other words, in 1990, 17 percent or \$60.8 million of total SMSA sales are projected to be generated by unidentified non-SMSA locations.

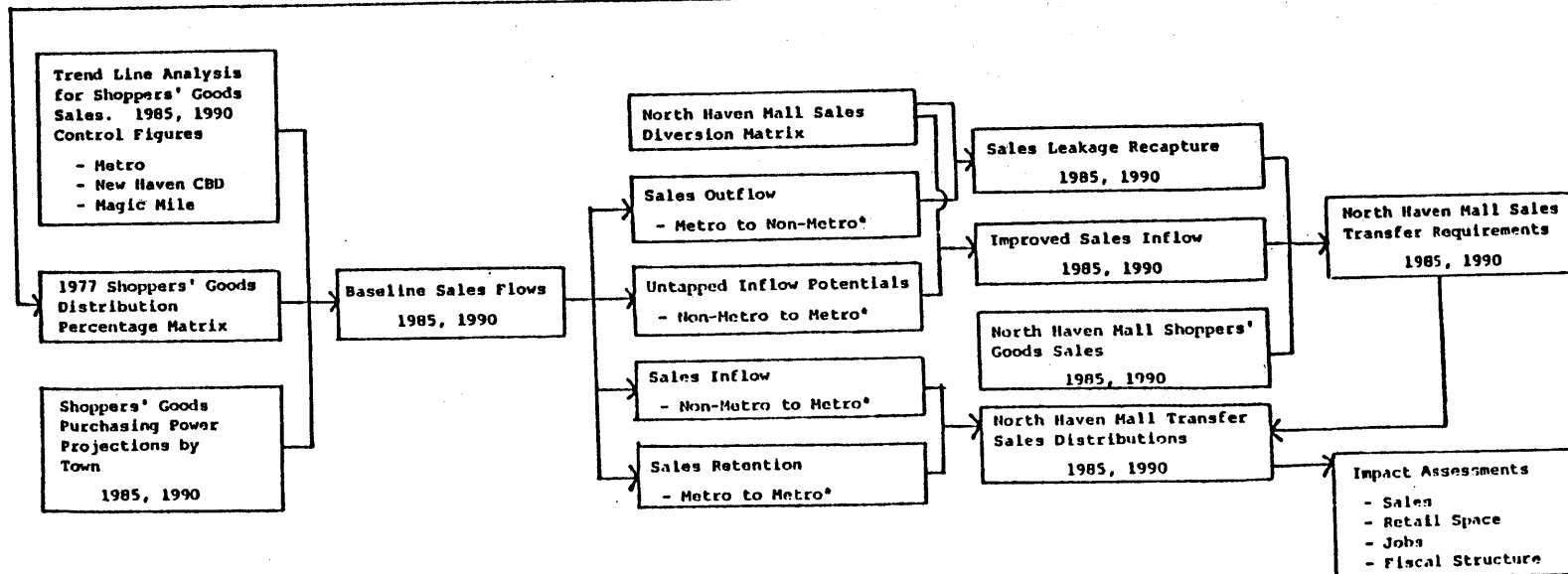
These detailed sales flows for 1985 and 1990, under Scenarios 1 and 2 can be found in the statistical tabulations of these attachments. (A graphic portrayal of these analytic techniques and the logic associated with this approach appear in the Exhibit following.)

GENERAL METHODOLOGY RETAIL IMPACT ANALYSIS

1977



1985/
1990



* Reflects Origination/Destination or place of consumer residence to place of sales transaction.

5. Impact of North Haven Mall

The baseline supply/demand configurations for the New Haven-West Haven metropolitan area, would be dramatically affected by a significant increase in retail space supply, such as that represented by the proposed North Haven Mall.

The "lower half" of the logic flow chart, presented earlier, graphically describes the analytical approach used in evaluating such supply/demand impacts of the proposed Mall. This methodology or approach takes advantage of the extensive level of detail afforded by the origination/destination matrix and the resultant ability to individually evaluate potential competitive impacts on 380 separate sales flow relationships within and around the metropolitan area.

This approach also allows, as previously described, the separate measurement of four major sales flow categories: sales retention (metro to metro), sales inflow (non-metro to metro), sales outflow (metro to non-metro) and untapped inflow potentials (non-metro to non-metro).

In this fashion, the potential impact of the North Haven Mall can be evaluated from a retail sales perspective in the following illustrative fashion: given a baseline sales flow of \$6.6 million from the town of North Haven to the New Haven CBD, what is the competitive relationship between the proposed North Haven Mall and the New Haven CBD in terms of travel distance from North Haven, accessibility and type and variety of retail services? Further, if the North Haven Mall is implemented, what percentage of those sales currently flowing from the town of North Haven to the CBD would be diverted to the North Haven Mall?

Such an approach allows for a highly detailed analysis that is carefully tailored to current market organization patterns within the New Haven metropolitan area.

Sales Leakage Recapture: To the extent that the North Haven Mall reduces current sales outflow (that is, SMSA area purchasing power going to non-SMSA sales locations), then this portion of the Mall's sales is defined as a recapture of sales leakage or outflow. The amount of the current sales leakage that can be recaptured from the various retail centers and other cities/towns outside of the SMSA boundaries will depend on several factors:

- Proximity: It is assumed that, given similar types of retail products, shoppers will choose to frequent the retail location which is closer to their place of residence. The closer the North Haven Mall is to the other cities/towns in the market area vis-a-vis currently frequented shopping centers outside the SMSA, the greater the likelihood of attracting back, or "recapturing," dollars currently being spent in non-SMSA locations.
- Comparability of Retail Products: Here the specific stores and types of retail goods that are represented in the current shopping destinations were evaluated as compared with that which would be offered by the North Haven Mall. Size of center and concentration of shopping opportunities are likely to give the Mall an advantage. However, if the retail product offered in other locations is of a "specialty" type, then the Mall will be less able to capture a significant portion of the leakage.
- Ambience: To the extent that the North Haven Mall will provide easier access, a more attractive shopping environment and better security, it will be able to recapture sales from other retail centers outside the SMSA.

Using these criteria, a recapture range was developed, in percentage terms, and was applied to each sales destination outside the SMSA. These potential recapture sales, under Scenario 1 and 2, for 1985 and 1990 are contained within the statistical tabulations at the end of this attachment.

Improved Sales Inflow: There are at least four towns along the northern fringe of the New Haven metropolitan area that are clearly within the principal market area of the proposed North Haven Mall. These include Cheshire, Durham, Middlefield and Meriden. Recognizing that the influence of the North Haven Mall might be felt beyond the boundaries of these towns, the analytical approach employed here has been to conservatively limit this potential area of influence. Purchasing power represented by residents of these non-metro area towns and which would be expected to flow to non-metro sales locations under baseline conditions represent untapped inflow potentials. To the extent that these sales flows are diverted to the North Haven Mall they would represent improved sales inflow for the New Haven SMSA.

Again the potential for improved sales inflow into the New Haven SMSA has been very conservatively limited to the non-SMSA towns of Durham, Middlefield, Meriden and Cheshire. It is possible that additional sales inflow, beyond the level estimated here, may occur. Estimates of improved sales inflow are included in the above-mentioned tables which detail sales recapture.

Sales Transfers: The above two categories represent sales going to non-SMSA sales locations from both SMSA and non-SMSA residents. On the other hand, sales currently flowing to SMSA area sales locations, regardless of whether they originate from SMSA or non-SMSA residents, would be considered sales transfers to the extent that they are diverted to the North Haven Mall.

It should be noted that this last item, sales transfers, is the element of particular interest with regard to potential competitive retail impacts on downtown New Haven, Hamden's Magic Mile or other metropolitan area locations.

Having established anticipated sales volumes for the North Haven Mall (see Attachment C. Project Profile) and sales opportunities through leakage recapture and improved inflow (see immediately above) total transfer sales were derived as follows:

Total Mall Sales - (Leakage Recapture + Improved Outflow) = Transfer Sales

It should be noted that total mall sales were first estimated independent of inflow/outflow distinctions, as described in Attachment C. The leakage recapture/improved inflow elements represent the "easier" target markets or those sales flows most susceptible to competition and diversion. These are consumers who are relatively close to the proposed mall location (they reside, by definition, within the SMSA) yet who, at present, travel outside the metro to satisfy their retail needs. If goods they are seeking are offered within the metro then they are an "easier" market than those who are already shopping near their place of residence (i.e., within the metro). Thus, the resultant transfer sales (per the above formula) represents the more difficult markets or dollars to attract to reach the forecast sales levels. It is assumed here, however, that the mall would be successful in achieving those transfer sales and the total sales volumes anticipated.

In addition to the total level of metro sales transfers, however, likely sales transfers from individual retail concentrations within the metro are of particular interest -- e.g., New Haven CBD or Hamden's Magic Mile.

The principal approach used for allocating the total metro sales transfers amongst individual sales locations, as suggested by HUD and its consultant, has been to distribute them on the basis of factors

related to proximity, comparability of retail products and ambience (factors described earlier in this section). The results of this approach are displayed in the percentage distribution matrix on the following page.

This matrix recognizes the differences in potential impacts from one retail center (or destination) to another within the metro. Specifically taken into account is the potential competitive impact the Mall might impose on each baseline "trading relationship" represented by each cell of the matrix vis-a-vis every other cell in the matrix. That is, by way of example, the baseline trading relationships represented by the North Haven/New Haven CBD and New Haven/New Haven CBD "cells" will be impacted most given proximity of the towns of origination (North Haven and New Haven) to the proposed Mall and the general comparability of shopping opportunities between the baseline destination (New Haven CBD in each cell in this illustration) and the Mall. At the other end of the spectrum would be a cell such as North Branford/North Branford where the shopping habits represented by the types of goods bought by North Branford residents in their own town will be only nominally impacted by the Mall.

TRANSFER SALES IMPACT
ALTERNATIVE DISTRIBUTION PERCENTAGES

Expenditure Origination/ Sales Destination	New Haven CBD	Magic Mile	White Acres	North Haven	New Haven	Wallingford	Hamden	North Branford	East Haven	Bethany	Woodbridge	Orange	West Haven	Branford	Guilford	Madison	Clinton
North Haven	6.5%	5.1%	0.2%	4.5%	0.3%	0.6%	0.3%	0.1%	0.3%	--	0.1%	0.1%	--	--	--	--	--
New Haven	6.8%	2.9%	1.0%	3.1%	2.9%	0.7%	0.7%	--	0.9%	--	--	0.9%	0.9%	0.4%	--	--	--
Wallingford	1.1%	5.2%	0.1%	2.6%	0.5%	1.2%	0.1%	0.1%	0.2%	--	--	--	0.1%	0.2%	--	--	--
Hamden	3.8%	4.6%	0.4%	3.1%	0.9%	0.4%	0.6%	--	0.2%	--	0.1%	0.1%	0.1%	--	--	--	--
North Branford	0.7%	1.0%	--	0.9%	0.1%	0.2%	0.1%	0.1%	0.2%	--	--	--	--	0.3%	0.1%	--	--
East Haven	2.4%	0.7%	0.2%	0.5%	1.1%	0.1%	0.1%	--	0.4%	--	--	0.1%	0.1%	0.4%	0.1%	--	--
Bethany	0.9%	0.2%	0.2%	0.1%	0.1%	--	--	--	--	0.2%	--	--	--	--	--	--	--
Woodbridge	0.8%	0.1%	0.1%	0.5%	0.5%	0.1%	0.1%	--	--	--	0.5%	0.1%	0.1%	--	--	--	--
Orange	0.1%	--	0.7%	0.1%	0.1%	--	--	--	--	--	--	0.4%	0.1%	--	--	--	--
West Haven	0.9%	0.1%	0.8%	0.3%	0.5%	--	--	--	0.1%	--	--	0.5%	1.1%	0.1%	--	--	--
Branford	1.7%	1.0%	0.1%	0.2%	0.8%	--	0.1%	--	0.4%	--	--	--	--	1.3%	--	--	--
Guilford	0.6%	0.4%	0.1%	0.3%	0.2%	--	--	--	0.2%	--	--	--	--	0.5%	1.1%	0.1%	--
Madison	0.5%	--	--	0.2%	0.1%	0.1%	--	--	0.1%	--	--	--	--	0.2%	0.7%	0.4%	0.2%
Clinton	--	--	--	--	--	--	--	--	--	--	--	--	--	0.1%	0.1%	0.2%	0.4%
Durham	--	--	--	--	--	0.1%	--	--	--	--	--	--	--	--	--	--	--
Middlefield	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Meriden	--	--	0.1%	--	0.1%	0.7%	--	--	--	--	--	--	--	--	--	--	--
Cheshire	0.1%	--	0.1%	0.6%	0.1%	0.2%	0.1%	--	--	--	--	--	--	--	--	--	--
Total	26.9%	21.3%	4.1%	17.0%	8.3%	4.4%	2.2%	0.3%	3.0%	0.2%	0.7%	2.2%	2.5%	3.5%	2.1%	0.7%	0.6%

E. Glossary

E. GLOSSARY

Community Shopping Center

Provides a wide range of facilities for the sale of shopping goods such as apparel and furniture, and may include banking and professional services and recreational facilities. A junior department store variety store, or discount department store is the principal tenant of this type of center. Average total area ranges from 91,000 to 268,000 square feet.

Comparison Goods

Those goods for which consumers are likely to "comparison shop." For purpose of this report, defined as shoppers goods.

Convenience Goods

Includes the retail categories of food and drug.

Discount Department Store

Establishments engaged in the sale of a variety of merchandise -- general merchandise, apparel, furniture, food and miscellaneous items -- in the low and popular price ranges.

Freestanding Retail

A single retail establishment which is not a physical part of a specific shopping center.

GAF

Retail sales are classified by the type of establishment from which they are sold. Strictly defined, GAF includes general merchandise, apparel and accessories and furniture. Frequently however, the term is used interchangeably with "shoppers goods" and is done so in this report.

Major Retail Center

As defined by the U.S. Bureau of the Census, a concentration of at least 25 retail stores located in an SMSA but outside a CBD. At least one of the stores must be a general merchandise store, with a minimum of 100,000 square feet of total under-roof floor space.

Neighborhood Shopping Center

Provides for the sale of daily living needs -- convenience goods such as food, drugs, hardware and personal services. A supermarket is the principal tenant of this type of center. Ranges in size from 27,000 to 96,000 square feet.

Principal Market Area

That area from which the North Haven Mall is expected to draw the majority of its sales. Includes those SMSA cities/towns of North Haven, New Haven, Wallingford, Hamden, North Branford, East Haven, Bethany, Woodbridge, Orange, West Haven, Branford, Guilford, Madison and Clinton. Also includes the non-SMSA towns of Durham, Middlefield, Meriden and Cheshire.

<u>Purchasing Power/ Expenditures</u>	That portion of a region's total aggregate income which is available for purchasing retail goods and services. Shoppers goods purchasing power is defined here at 13.5% of aggregate income.
<u>Regional Shopping Center</u>	Provides a variety and depth of shopping goods comparable to those of a central business district in a small city, including general merchandise, apparel and home furnishings, as well as a variety of services and perhaps recreational facilities. One or two major department stores of generally not less than 100,000 square feet of GLA are the principal tenants. Total area ranges in size from 300,000 to 830,000 square feet.
<u>Sales Inflows</u>	Purchasing power of non-SMSA residents which is spent at sales locations within the SMSA (referred to as non-metro to metro).
<u>Sales Leakage</u>	Sales outflows (see below).
<u>Sales Outflows</u>	Purchasing power of SMSA residents which is spent at sales locations outside the SMSA (referred to as metro to non-metro).
<u>Sales Recapture</u>	Sales outflows which are projected to be diverted from non-SMSA sales destinations to the North Haven Mall.
<u>Sales Retention</u>	Purchasing power of SMSA residents which is spent at SMSA sales locations (referred to as metro to metro).
<u>Sales Transfers</u>	Expenditures at SMSA sales destinations which might be diverted, or transferred, to the North Haven Mall.
<u>Selected Services</u>	Included establishments primarily engaged in rendering a variety of services to individuals and business establishments: hotels, motels and trailer camps; personal services; automotive repair services; miscellaneous repair services.
<u>Shoppers Goods</u>	Includes the retail categories of general merchandise, apparel and accessories, furniture and miscellaneous shoppers goods. The latter category includes items sold in the following types of stores: sporting goods, books and stationery, jewelry, hobby, camera, gift, luggage and sewing.
<u>SMSA</u>	An abbreviation for Standard Metropolitan Statistical Area. It is defined by the U.S. Bureau of the Census and updated periodically. In New England, an SMSA is defined as consisting of

a central city and those cities and towns immediately adjacent to it when economic and social relationships among these areas meet specified criteria of metropolitan character and integration.

Soft Goods

Includes apparel, linens and general merchandise. Does not include appliances, hardware or furniture.

Strip Commercial

A massing of retail establishments -- small centers and freestanding establishments -- generally found along major local traffic routes.

Super Regional
Shopping Center

Provides an extensive variety and depth of shopping goods comparable to those of the central business district of a major area. Includes a wide selection of general merchandise, apparel and home furnishings, as well as a variety of services and recreational facilities. The principal occupants must include at least three full-line department stores of generally not less than 100,000 square feet. Total area of the center ranges from 724,000 to 1,304,000 square feet.

Untapped Inflow
Potentials

Purchasing power of individuals living outside the SMSA which is spent at sales locations outside the SMSA (referred to as non-metro to non-metro).

F. Statistical Tabulations

SHOPPERS SURVEYS

SHOPPERS SURVEY

Interview Location: _____ Interviewer: _____
Date of Interview: _____ Time of Interview: _____
Weekday _____ Aft. _____ Eve. _____
Saturday _____ AM _____ PM

1. PLACE OF RESIDENCE

Where do you live _____ and what is your Zip Code _____

How long does it take for you to travel from your home to here? _____

2. SHOPPING PATTERN

a. How often do you shop here?

_____ daily	_____ monthly
_____ several times a week	_____ bi-monthly
_____ weekly	_____ rarely
_____ bi-weekly	

b. During your trip today at what stores do you plan to shop?

c. Where else do you frequently shop?

_____ New Haven CBD	_____ Connecticut Post Shopping Center
_____ Meridan Square	_____ East Haven (Bradlees, K-Mart, etc.)
_____ Naugatuck Mall, Waterbury	_____ Hamden Shopping Centers (Plaza, Mart, Caldors, Acme)
_____ Trumbull Shopping Park	_____ Other (specify) _____
_____ Bridgeport	
_____ West Farms, Hartford	
_____ White Plains	

Interviewer Observation

Age: Under 20 _____; 20-25 _____; 25-35 _____; 35-45 _____; 45-55 _____; 55-65 _____;
Over 65 _____.

Sex: M _____; F _____.

SHOPPERS IN THE NEW HAVEN SMSA,
BY PLACE OF RESIDENCE, DECEMBER, 1977

<u>Place of Residence</u>	<u>Downtown New Haven</u>	<u>Suburban Shopping Centers</u>	<u>Total</u>
City of New Haven	43.0%	24.0%	33.3%
Hamden/North Haven	15.5%	15.7%	15.6%
East Haven/Branford	12.4%	2.5%	7.3%
West Haven	10.9%	15.7%	12.9%
Bethany/Woodbridge/ Orange	5.7%	20.1%	13.1%
Subtotal	(87.5%)	(78.0%)	(82.2%)
Other SMSA	5.8%	6.3%	6.3%
SMSA Total	93.3%	84.3%	88.5%
All Other	6.7%	15.7%	11.5%
Survey Total	100.0%	100.0%	100.0%

Source: Halcyon, Ltd. and New Haven Chamber of Commerce's Shoppers Survey,
December, 1977.

RESPONSES TO SHOPPERS SURVEY

MIRACLE MILK-HAMDEN

MARCH 1980

Place of Residence

1. Travel Time

0- 5 Minutes
5-10 Minutes
10-20 Minutes
20-30 Minutes
30+ Minutes

Total

2a. Shopping Pattern

Daily
Several Times a Week
Weekly
Biweekly
Monthly
Bimonthly
Rarely

Total

2b. Stores^{1/}

Bradlees
Stop & Shop
Marshalls
Child World

2c. Where Else Shop?

New Haven CBD
Meriden Square
Naugatuck
Trumbull
Bridgeport
Westfarms
White Plains
Connecticut Post
East Haven
Hamden
Other

Total

AGE: Less than 20

20-25
25-35
35-45
45-55
55-65
Over 65

Total

SEX: Male
Female

Total

	Hamden	Wallingford	New Haven	North Haven	Woodbridge	Fairhaven	Naugatuck	Yalesville	Cheshire	East Haven	Southington	Waterbury	Guilford	North Branford	Trumbull	Meriden	Norwalk	Milford	Branford	Bethany	Orange	Northford	Prospect	Total	Percent of Total
29	--	2	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	35	22.3%
17	1	13	5	--	--	--	--	--	--	1	--	--	--	2	--	--	--	--	--	--	--	--	--	36	22.9%
9	13	5	6	--	2	--	--	2	5	3	1	--	--	--	--	--	--	--	4	--	--	2	--	43	27.4%
--	5	3	--	2	1	1	1	1	2	--	--	1	1	1	1	1	1	--	--	2	1	--	1	25	15.9%
--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18	11.5%
55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	4	2	1	2	1	157	100.0%
9	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	9	5.7%
25	2	4	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	37	23.6%
12	4	11	6	--	1	--	--	3	1	2	--	--	--	--	--	--	--	--	--	1	--	2	--	38	24.2%
7	4	4	1	2	--	1	--	2	2	1	1	1	1	--	--	1	--	--	--	--	--	--	--	26	16.6%
--	5	2	3	2	--	--	--	2	5	1	--	--	--	--	--	--	--	1	--	1	--	--	--	25	15.9%
--	--	1	--	--	--	--	--	1	2	--	--	--	--	--	--	--	1	--	--	--	1	--	--	6	3.8%
2	4	1	1	--	--	--	--	--	--	--	--	--	--	1	1	--	1	--	4	--	--	--	1	16	10.2%
55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	4	2	1	2	1	157	100.0%
20	5	8	4	3	1	--	1	4	1	1	1	--	--	--	1	1	--	--	--	1	--	--	--	51	
20	--	2	1	--	1	1	--	--	--	--	--	--	--	2	--	--	--	--	--	1	--	--	1	26	
5	5	3	4	1	--	--	--	2	2	1	--	1	--	--	--	--	--	--	--	--	1	--	--	24	
1	2	--	2	--	--	--	--	--	3	2	--	--	--	--	--	--	--	--	2	--	--	--	--	11	
16	1	10	5	--	--	--	--	10	2	--	--	--	1	--	--	--	--	--	2	1	--	--	--	56	
8	14	4	6	--	--	--	--	3	1	1	1	1	--	--	1	1	--	--	--	1	--	--	--	47	
--	--	2	--	--	--	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	10	
2	1	2	1	--	--	--	--	--	2	--	--	--	--	--	--	--	--	1	--	--	--	--	1	9	
--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	
2	4	1	1	--	--	--	--	2	--	1	1	--	1	--	1	1	1	--	--	--	--	--	1	13	
3	1	--	3	--	--	--	--	--	--	2	--	--	--	3	--	--	1	1	2	--	--	--	--	33	
10	1	13	--	--	--	--	--	--	7	3	--	--	--	1	--	--	--	--	--	--	--	--	--	19	
2	--	4	--	2	--	--	--	--	1	1	1	1	1	2	1	1	1	1	2	2	--	2	--	120	
56	13	14	13	3	1	1	2	1	1	1	1	1	1	2	1	1	1	1	2	1	--	--	--	21	
1	3	7	6	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2	--	--	--	--	345	
100	38	66	32	8	1	2	7	27	13	4	2	3	9	4	4	3	3	3	8	5	--	2	2		
9	1	--	--	2	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	8.9%
10	5	5	6	1	--	--	--	3	--	1	1	--	--	1	1	--	1	--	2	1	1	--	--	35	22.3%
6	5	10	3	--	--	1	1	6	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	41	26.1%
13	2	4	3	--	--	--	--	--	1	--	--	--	--	2	--	--	--	1	2	--	--	--	1	29	18.5%
9	4	--	1	1	--	--	--	2	--	1	--	--	--	--	--	1	--	--	--	--	--	--	--	17	10.8%
5	2	3	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16	10.2%
3	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	3.2%
55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	4	2	1	2	1	157	100.0%
27	3	7	6	3	--	--	--	4	2	--	--	--	--	1	1	1	--	1	1	1	--	1	--	59	37.6%
28	16	16	9	1	1	1	3	8	2	1	1	1	1	2	--	--	1	--	3	1	1	1	1	98	62.4%
55	19	23	15	4	1	1	3	12	4	1	1	1	3	1	1	1	1	4	4	2	1	2	1	157	100.0%

^{1/} Major anchor stores.

Source: Gladstone Associates Survey, March 1980.

RESPONSES TO SHOPPERS SURVEY

MERIDEN SQUARE

APRIL 1980

Place of Residence	Meriden	Wallingford	Northford	Cheshire	North Haven	Durham	Hamden	New Haven	Southbury	Middlefield	Prospect	Total	Percent of Total
<u>1. Travel Time</u>													
0- 5 Minutes	16	--	--	--	--	--	--	--	--	--	--	16	11.4%
5-10 Minutes	30	--	--	--	--	--	--	--	--	--	--	30	21.4%
10-20 Minutes	44	1	--	--	--	--	--	--	--	--	--	45	32.2%
20-30 Minutes	2	14	--	3	--	2	--	1	--	--	1	23	16.4%
30+ Minutes	--	5	8	2	3	2	2	1	1	2	--	26	18.6%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%
<u>2a. Shopping Pattern</u>													
Daily	--	--	--	--	--	--	--	--	--	--	--	--	--
Several Times a Week	9	--	--	--	--	--	--	--	--	--	--	9	6.4%
Weekly	45	2	--	--	--	--	--	--	--	--	--	47	33.6%
Biweekly	32	14	3	1	--	2	1	--	1	1	--	55	39.3%
Monthly	5	1	3	2	2	1	--	1	--	--	1	16	11.4%
Bi-monthly	--	3	1	2	1	--	1	--	--	1	--	9	6.4%
Rarely	1	--	1	--	--	1	--	1	--	--	--	4	2.9%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%
<u>2b. Stores^{1/}</u>													
G. Fox	28	7	2	2	2	2	1	--	1	--	--	45	
J.C. Penney's	37	9	1	2	2	2	1	--	--	--	--	54	
<u>2c. Where Else Do You Frequently Shop?</u>													
New Haven CBD	6	14	7	2	3	3	1	2	--	--	--	38	
Meriden Square	--	--	--	--	--	--	--	--	--	--	--	--	--
Nauguatuck	18	3	--	5	1	--	1	--	1	--	1	31	
Trumbull	1	--	--	--	--	--	--	--	--	--	--	1	
Bridgeport	--	--	--	--	--	--	--	--	--	--	--	--	--
Westfarms	39	9	1	4	1	3	1	1	--	2	--	61	
White Plains	--	--	--	--	--	--	--	--	--	--	--	--	--
Connecticut Post	--	2	4	--	--	--	--	2	--	--	--	8	
East Haven	--	4	5	--	1	--	1	2	--	--	--	12	
Hamden	4	14	7	2	3	3	1	2	--	1	--	37	
Other	2	--	--	--	--	--	--	1	1	--	--	4	
Total	71	46	24	13	9	9	5	10	2	2	1	192	
<u>AGE:</u>													
Less than 20	10	2	--	--	--	--	--	--	--	--	--	12	8.6%
20-25	23	4	--	--	--	--	--	--	--	1	1	29	20.7%
25-35	19	4	2	2	--	--	1	1	--	--	--	29	20.7%
35-45	17	2	4	2	1	1	--	1	--	1	--	29	20.7%
45-55	16	6	2	1	2	2	1	--	--	--	--	30	21.4%
55-65	6	2	--	--	--	1	--	--	1	--	--	10	7.2%
Over 65	1	--	--	--	--	--	--	--	--	--	--	1	0.7%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%
<u>SEX:</u>													
Male	40	5	1	--	--	--	--	--	--	2	--	48	34.3%
Female	52	15	7	5	3	4	2	2	1	--	1	92	65.7%
Total	92	20	8	5	3	4	2	2	1	2	1	140	100.0%

^{1/} Anchor department stores.

Source: Gladstone Associates Survey, April 1980.

RESPONSES TO SHOPPERS SURVEY

TRUMBULL SHOPPING PARK

APRIL 1980

Place of Residence	Bridgeport	Trumbull	Stratford	Fairfield	Monroe	Shelton	Huntington	Ansonia	Milford	Norwalk	Easton	Westport	Weston	Wilton	Seymour	West Haven	New Haven	Hamden	Orange	Darien	Oxford	Newton	Ridgefield	Bethel	Stamford	Simsbury	Total	Percent of Total
1. Travel Time																												
0- 5 Minutes	9	4	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	10.3%
5-10 Minutes	12	9	3	3	--	--	--	--	--	--	1	--	--	1	--	--	--	1	1	--	--	1	--	--	--	--	28	20.5%
10-20 Minutes	20	12	6	3	4	2	3	1	3	--	1	5	--	1	2	2	1	1	1	--	--	--	--	--	--	--	62	45.5%
20-30 Minutes	2	1	2	1	3	2	--	--	1	2	--	2	--	1	2	2	1	--	--	1	1	--	1	1	1	1	23	16.9%
30+ Minutes	--	--	--	--	--	--	--	1	--	2	--	--	--	--	--	--	--	--	--	1	1	--	1	1	1	1	9	6.6%
Total	43	26	11	8	7	4	3	2	4	4	2	2	5	2	2	2	1	1	1	1	1	1	1	1	1	1	137	100.0%
2a. Shopping Pattern																												
Daily	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	2.1%
Several Times a Week	6	2	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10	7.3%
Weekly	10	9	4	3	1	1	1	--	1	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32	23.4%
Biweekly	10	2	2	1	2	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	19	13.9%
Monthly	10	4	2	3	1	1	2	--	2	1	--	--	--	2	--	1	--	--	--	1	--	--	--	1	--	--	31	22.6%
Bi-monthly	4	5	2	--	1	1	--	--	--	1	--	--	2	--	--	--	--	1	--	1	--	--	--	--	--	--	18	13.2%
Rarely	1	3	--	1	1	1	--	2	1	1	--	1	3	--	2	1	1	--	1	--	--	1	1	--	1	1	24	17.5%
Total	43	26	11	8	7	4	3	2	4	4	2	2	5	2	2	2	1	1	1	1	1	1	1	1	1	1	137	100.0%
2b. Stores ^{1/}																												
G. Fox	11	19	6	3	4	2	2	2	2	3	2	2	2	2	2	1	1	1	--	--	--	--	1	--	1	--	70	
Read's	21	21	5	7	5	1	2	--	2	2	--	2	5	1	2	2	--	1	--	1	1	--	1	1	--	--	83	
2c. Where Else Do You Frequently Shop?																												
New Haven CBD	1	1	--	--	2	--	1	1	2	--	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	11	
Meriden Square	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	2	
Naugatuck	1	--	--	--	--	--	--	--	2	1	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	6	
Trumbull	17	6	--	3	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27	
Bridgeport	15	2	5	3	2	--	--	--	--	--	1	1	1	1	--	2	--	--	--	--	--	--	--	--	--	--	33	
Westfarms	1	3	--	--	1	--	--	2	2	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	11	
White Plains	1	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	
Connecticut Post	1	1	--	--	1	--	--	--	--	1	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	30	
East Haven	8	7	2	--	2	2	2	--	4	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--	1	
Hamden	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	1	--	--	--	--	--	8	
Other	1	--	--	1	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	1	1	54	
Total	57	31	14	10	12	5	6	5	9	4	1	2	6	3	4	6	2	2	1	1	1	1	1	1	1	2	188	
AGE:																												
Less Than 20	7	5	2	2	2	--	1	--	2	2	1	1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	26	18.9%
20-25	12	6	3	--	--	--	--	--	--	--	--	--	--	2	--	1	--	--	--	--	--	--	1	--	--	--	25	18.3%
25-35	9	3	3	4	2	1	2	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	1	31	22.6%
35-45	9	3	3	4	2	1	2	--	--	1	--	1	--	1	1	--	--	--	1	--	--	--	--	--	--	--	20	14.6%
45-55	6	4	--	1	1	2	--	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	15	11.0%
55-65	2	4	1	--	1	1	--	2	--	--	--	1	2	--	--	--	--	--	--	1	--	--	--	--	--	--	12	8.8%
Over 65	2	4	1	1	1	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	8	5.8%
Total	5	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	1	1	--	--	--	--	--	--	--	--	137	100.0%
SEX:																												
Male	13	3	5	2	3	2	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	31	22.6%
Female	30	23	6	6	4	2	3	1	4	3	2	2	5	2	2	2	1	1	1	1	1	1	1	1	1	1	106	77.4%
Total	43	26	11	8	7	4	3	2	4	4	2	2	5	2	2	2	1	1	1	1	1	2	1	1	1	1	137	100.0%

^{1/} Anchor department stores.

Source: Gladstone Associates Survey, April 1980

DETAILED SALES FLOWS MATRICES

BASELINE CONDITION

1985 and 1990

SCENARIO 1: ZERO INCOME GROWTH 1985

NO INCOME GROWTH; CONTROL TOTALS HELD CONSTANT(CASE A)

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA
1985
(IN THOUSANDS OF 1977 CONSTANT DOLLARS)

SMSA CITY/TOWN	SHOPPERS GOODS PURCH POWER	CENTERS WITHIN SMSA				CENTERS OUTSIDE SMSA						TOTAL	BALANCE SHOPPERS GOODS PURCH. POWER
		NEW HAVEN CBD	MIRACLE MILE	WHITE ACRES	SUB- TOTAL SMSA	CONN. POST	TRUM- BULL SHOPNG PARK	MERI- DEN SQUARE	WEST FARMS	NAUGA- TUCK VALLEY	SUB- TOTAL NON- SMSA		
NORTH HAVEN	22583	5823	5404	135	11562	53	0	738	567	44	1402	12964	9619
NEW HAVEN	82467	30998	8589	2189	41776	443	455	474	254	75	1701	43477	38990
WALLINGFORD	33858	935	7341	72	8348	34	0	5229	2240	127	7630	15978	17880
HAMDEN	48820	5881	20572	391	26844	109	476	496	799	116	1996	28840	19980
NORTH BRANFORD	10148	1056	1134	45	2235	21	0	2051	348	20	2440	4675	5473
EAST HAVEN	19221	5553	1447	243	7243	87	0	0	0	24	111	7354	11867
BETHANY	4521	1336	810	113	2259	39	0	0	40	76	155	2414	2107
WOODBIDGE	12802	1260	352	678	2290	129	0	0	189	20	338	2628	10174
ORANGE	16045	1247	348	5845	7440	1156	470	0	0	19	1645	9085	6960
WEST HAVEN	42865	8187	585	6670	15442	1680	987	0	0	34	2701	18143	24722
BRANFORD	24051	3814	1511	139	5464	54	0	0	0	0	54	5518	18533
GUILFORD	18762	1289	383	65	1737	33	0	0	206	0	239	1976	16786
MADISON	16103	1133	0	38	1171	22	0	0	457	0	479	1650	14453
CLINTON	9843	78	0	0	78	0	0	0	0	0	0	78	9765
SUBTOTAL	362089	68590	48676	16623	133889	3860	2388	8988	5100	555	20891	154780	207309
DURHAM	5046	0	0	0	0	7	0	1117	952	19	2095	2095	2951
MIDDLEFIELD	3562	0	0	0	0	5	0	573	1318	34	1930	1930	1632
MERIDEN	47468	0	352	32	384	16	0	23316	6489	311	30132	30516	16952
CHESHIRE	23452	809	4873	51	5733	24	0	1392	4525	1243	7184	12917	10535
SUBTOTAL	79528	809	5225	83	6117	52	0	26398	13284	1607	41341	47458	32070
TOTAL	441617	69399	53901	16706	140006	3912	2388	35386	18384	2162	62232	202238	239379

NO INCOME GROWTH; CONTROL TOTALS HELD CONSTANT(CASE A)

 DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
 NORTH HAVEN MARKET AREA
 1985
 (IN THOUSANDS OF 1977 CONSTANT DOLLARS)

		SMSA CITIES/TOWNS												NON-SMSA CITIES/TOWNS							
BALANCE SHOPPERS GOODS PURCH. POWER		NORTH HAVEN	NEW HAVEN	WAL-LING-FORD	HAM-DEN	NORTH BRAN-FORD	EAST HAVEN	BE-THA-WOOD-NYBRIDGE	OR-ANGE	WEST HAVEN	BRAN-FORD	GUIL-FORD	MADI-SON	CLIN-TON	DUR-HAM	MID-DLE-FIELD	MERI-DEN	CHE-SHIRE	MIL-FORD	OTHR	
NORTH HAVEN	9619	4318	301	1305	401	85	401	0	201	100	0	0	0	0	0	0	0	258	0	2249	
NEW HAVEN	38990	1609	21318	804	1206	0	1609	0	0	3219	1609	804	0	0	0	0	0	0	681	6130	
WALLINGFORD	17880	2334	538	10591	180	150	359	0	0	0	180	359	0	0	0	0	1405	351	0	1434	
HANDEN	19980	2695	2488	623	6839	0	209	0	209	209	0	0	0	0	0	0	187	187	0	6126	
NORTH BRANFO	5473	843	281	338	56	473	393	0	0	0	675	91	0	0	53	0	53	0	0	2213	
EAST HAVEN	11867	480	2763	119	241	202	3965	0	0	241	360	1803	102	0	0	0	0	0	109	1482	
BETHANY	2107	89	199	45	89	0	0	753	178	66	66	0	0	0	0	0	0	38	38	546	
WOODBIDGE	10174	409	2046	103	409	0	0	0	3888	819	307	0	0	0	0	0	0	0	399	1795	
ORANGE	6960	70	567	0	70	0	0	0	70	2967	848	0	0	0	0	0	0	0	1285	1084	
WEST HAVEN	24722	252	4271	0	0	0	252	0	0	4271	9797	252	0	0	0	0	0	0	2346	3283	
BRANFORD	18533	186	1861	0	186	0	1676	0	0	0	186	11726	642	0	0	0	0	0	179	1891	
GUILFORD	16786	169	675	0	0	0	507	0	0	0	0	2363	7613	564	116	0	0	0	0	4781	
MADISON	14453	145	293	145	0	0	293	0	0	0	0	1023	2359	2732	496	0	0	0	0	6966	
CLINTON	9765	0	97	0	0	0	0	0	0	0	0	293	368	1197	1879	0	0	0	0	5931	
SUBTOTAL	207309	13599	37698	14073	9677	910	9664	753	4546	11892	13562	19298	11178	4493	2491	53	0	1645	834	45911	
DURHAM	2951	0	30	207	0	0	0	0	0	0	0	30	75	25	0	827	88	60	0	1609	
MIDDLEFIELD	1632	0	0	81	0	0	0	0	0	0	0	0	0	0	33	359	114	0	0	1045	
MERIDEN	16952	0	170	3227	0	0	0	0	0	0	0	0	0	0	0	0	9320	338	0	3897	
CHESHIRE	10535	472	236	944	236	0	0	0	0	0	0	0	0	0	0	0	206	5148	0	3292	
SUBTOTAL	32070	472	436	4459	236	0	0	0	0	0	0	30	75	25	0	860	447	9700	5486	0	9843
TOTAL	239379	14071	38134	18532	9913	910	9664	753	4546	11892	13562	19328	11253	4518	2491	913	447	11345	6320	5037	55754

SCENARIO 1: ZERO INCOME GROWTH 1990

NO INCOME GROWTH; CONTROL TOALS HELD CONSTANT

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
NORTH HAVEN MARKET AREA
1990
(IN THOUSANDS OF 1977 CONSTANT DOLLARS)

SMSA CITY/TOWN	SHOPPERS GOODS PURCH POWER	CENTERS WITHIN SMSA				CENTERS OUTSIDE SMSA						TOTAL	BALANCE SHOPPERS GOODS PURCH. POWER
		NEW HAVEN CBD	MIRACLE MILE	WHITE ACRES	SUB- TOTAL SMSA	CONN. POST	TRUM- BULL SHOPNG PARK	MERI- DEN SQUARE	WEST FARMS	NAUGA- TUCK VALLEY	SUB- TOTAL NON- SMSA		
NORTH HAVEN	22815	5518	5567	136	11221	53	0	745	573	44	1415	12636	10179
NEW HAVEN	83796	29541	8582	2224	40347	450	462	482	258	76	1728	42075	41721
WALLINGFORD	34732	900	7406	73	8379	35	0	5364	2298	131	7828	16207	18525
HAMDEN	49010	5537	20309	393	26239	109	478	498	802	117	2004	28243	20767
NORTH BRANFORD	10365	1011	1139	45	2195	21	0	2095	355	20	2491	4686	5679
EAST HAVEN	19489	5281	1443	246	6970	88	0	0	0	24	112	7082	12407
BETHANY	4672	1295	823	117	2235	40	0	0	41	78	159	2394	2278
WOODBIDGE	12965	1196	351	686	2233	131	0	0	192	21	344	2577	10388
ORANGE	16284	1186	348	5932	7466	1173	477	0	0	19	1669	9135	7149
WEST HAVEN	43144	7728	578	6714	15020	1691	994	0	0	35	2720	17740	25404
BRANFORD	24505	3644	1514	142	5300	55	0	0	0	0	55	5355	19150
GUILFORD	19516	1258	392	68	1718	35	0	0	214	0	249	1967	17549
MADISON	16978	1120	0	40	1160	23	0	0	482	0	505	1665	15313
CLINTON	10208	76	0	0	76	0	0	0	0	0	0	76	10132
SUBTOTAL	368479	65291	48452	16816	130559	3904	2411	9184	5215	565	21279	151838	216641
DURHAM	5409	0	0	0	0	7	0	1197	1020	20	2244	2244	3165
MIDDLEFIELD	3740	0	0	0	0	5	0	602	1384	36	2027	2027	1713
MERIDEN	47756	0	348	32	380	16	0	23457	6529	313	30315	30695	17061
CHESHIRE	24963	808	5102	54	5964	26	0	1481	4816	1323	7646	13610	11353
SUBTOTAL	81868	808	5450	86	6344	54	0	26737	13749	1692	42232	48576	33292
TOTAL	450347	66099	53902	16902	136903	3958	2411	35921	18964	2257	63511	200414	249933

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NO INCOME GROWTH; CONTROL TOALS HELD CONSTANT

DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
NORTH HAVEN MARKET AREA
1990
(IN THOUSANDS OF 1977 CONSTANT DOLLARS)

BALANCE SHOPPERS GOODS PURCH. POWER	SMSA CITIES/TOWNS												NON-SMSA CITIES/TOWNS							
	NORTH HAVEN	NEW HAVEN	WAL- LING- FORD	HAM- DEN	NORTH BRAN- FORD	EAST HAVEN	BE- THA- NYBRIDGE	WOOD- NYBRIDGE	OR- ANGE	WEST HAVEN	BRAN- FORD	GUIL- FORD	MADI- SON	CLIN- TON	DUR- HAM	MID- DLE- FIELD	MERI- DEN	CHE- SHIRE	MIL- FORD	OTHER
NORTH HAVEN 10179	4641	324	1403	431	92	431	0	216	108	0	0	0	0	0	0	0	0	261	0	2271
NEW HAVEN 41721	1740	23055	870	1305	0	1740	0	0	3480	1740	870	0	0	0	0	0	0	0	692	6230
WALLINGFORD 18525	2423	559	10997	186	156	372	0	0	0	186	372	0	0	0	0	0	1441	360	0	1472
HAMDEN 20767	2847	2629	658	7226	0	219	0	219	219	219	0	0	0	0	0	0	187	187	0	4155
NORTH BRANFD 5679	884	295	355	59	497	413	0	0	0	0	708	98	0	0	54	0	54	0	0	2242
EAST HAVEN 12407	505	2902	126	253	212	4164	0	0	253	378	1894	108	0	0	0	0	0	0	111	1502
BETHANY 2278	98	219	49	98	0	0	830	196	73	73	0	0	0	0	0	0	0	39	39	565
WOODBIDGE 10388	419	2095	105	419	0	0	0	3978	838	314	0	0	0	0	0	0	0	0	404	1817
ORANGE 7149	72	585	0	72	0	0	0	72	3066	877	0	0	0	0	0	0	0	0	1304	1100
WEST HAVEN 25404	260	4415	0	0	0	260	0	0	4415	10128	260	0	0	0	0	0	0	0	2361	3305
BRANFORD 19150	192	1926	0	192	0	1735	0	0	0	192	12138	665	0	0	0	0	0	0	182	1927
GUILFORD 17549	177	707	0	0	0	531	0	0	0	0	2475	7976	591	122	0	0	0	0	0	4920
MADISON 15313	155	311	155	0	0	311	0	0	0	0	1089	2511	2908	528	0	0	0	0	0	7345
CLINTON 10132	0	101	0	0	0	0	0	0	0	0	304	383	1242	1950	0	0	0	0	0	6151
SUBTOTAL 216641	14413	40123	14718	10241	957	10176	830	4681	12452	14107	20110	11741	4741	2600	54	0	1682	847	5093	47072
DURHAM 3165	0	32	222	0	0	0	0	0	0	0	32	81	27	0	886	94	64	0	0	1727
MIDDLEFIELD 1713	0	0	85	0	0	0	0	0	0	0	0	0	0	0	35	377	120	0	0	1026
MERIDEN 17061	0	172	3253	0	0	0	0	0	0	0	0	0	0	0	0	0	9376	340	0	3921
CHESHIRE 11353	538	268	1075	268	0	0	0	0	0	0	0	0	0	0	0	0	219	5480	0	3505
SUBTOTAL 33292	538	472	4635	268	0	0	0	0	0	0	32	81	27	0	921	471	9779	5820	0	10249
TOTAL 249933	14951	40595	19353	10509	957	10176	830	4681	12452	14107	20142	11822	4768	2600	975	471	11461	6667	5093	57321

SCENARIO 2: ONE PERCENT INCOME GROWTH 1985

1% INCOME GROWTH; CONTROL TOTALS HELD CONSTANT(CASE A)

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
 NORTH HAVEN MARKET AREA
 1985
 (IN THOUSANDS OF 1977 CONSTANT DOLLARS)

SMSA CITY/TOWN	SHOPPERS GOODS PURCH POWER	CENTERS WITHIN SMSA				CENTERS OUTSIDE SMSA						TOTAL	BALANCE SHOPPERS GOODS PURCH. POWER
		NEW HAVEN CBD	MIRACLE MILE	WHITE ACRES	SUB- TOTAL SMSA	CONN. POST	TRUM- BULL SHOPNG PARK	MERI- DEN SQUARE	WEST FARMS	NAUGA- TUCK VALLEY	SUB- TOTAL NON- SMSA		
NORTH HAVEN	24454	5823	5604	146	11573	57	0	799	614	47	1517	13090	11364
NEW HAVEN	89300	30998	8589	2371	41958	480	492	513	275	81	1841	43799	45501
WALLINGFORD	36664	936	7341	77	8354	36	0	5662	2425	138	8261	16615	20049
HAMDEN	52865	5881	20572	424	26877	118	515	537	865	126	2161	29038	23827
NORTH BRANFORD	10989	1055	1134	48	2237	22	0	2221	377	21	2641	4878	6111
EAST HAVEN	20814	5553	1447	263	7263	95	0	0	0	26	121	7384	13430
BETHANY	4895	1336	810	123	2269	42	0	0	43	82	167	2436	2459
WOODBIDGE	13863	1260	352	734	2346	140	0	0	205	22	367	2713	11150
ORANGE	17374	1247	348	6330	7925	1252	509	0	0	21	1782	9707	7667
WEST HAVEN	46416	8187	584	7223	15994	1819	1069	0	0	37	2925	18919	27497
BRANFORD	26043	3814	1511	151	5476	59	0	0	0	0	59	5535	20508
GUILFORD	20316	1289	382	71	1742	36	0	0	223	0	259	2001	18315
MADISON	17438	1134	0	41	1175	24	0	0	495	0	519	1694	15744
CLINTON	10659	78	0	0	78	0	0	0	0	0	0	78	10581
SUBTOTAL	392090	68591	48674	18002	135267	4180	2585	9732	5522	601	22620	157887	234203
DURHAM	5464	0	0	0	0	7	0	1210	1031	20	2268	2268	3196
MIDDLEFIELD	3858	0	0	0	0	5	0	620	1427	37	2089	2089	1769
MERIDEN	51401	0	352	34	386	18	0	25248	7027	337	32630	33016	18385
CHESHIRE	25395	809	4874	55	5738	26	0	1507	4899	1346	7778	13516	11879
SUBTOTAL	86118	809	5226	89	6124	56	0	28585	14384	1740	44765	50889	35229
TOTAL	478208	69400	53900	18091	141391	4236	2585	38317	19906	2341	67385	208776	269432

1% INCOME GROWTH; CONTROL TOTALS HELD CONSTANT(CASE A)

DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
 NORTH HAVEN MARKET AREA
 1985
 (IN THOUSANDS OF 1977 CONSTANT DOLLARS)

SMSA CITIES/TOWNS													NON-SMSA CITIES/TOWNS								
BALANCE SHOPPERS GOODS PURCH. POWER	NORTH HAVEN	NEW HAVEN	WAL- LING- FORD	HAM- DEN	NORTH BRAN- FORD	EAST HAVEN	BE- THA- NYBRIDGE	WOOD- BRIDGE	OR- ANGE	WEST HAVEN	BRAN- FORD	GUIL- FORD	MADI- SON	CLIN- TON	DUR- HAM	MID- BLE- FIELD	PERI- LEN	CHE- SHIRE	MIL- FORD	OTHR	
NORTH HAVEN	11364	5250	366	1587	488	104	488	0	244	122	0	0	0	0	0	0	0	279	0	2436	
NEW HAVEN	45501	1906	25257	954	1429	0	1906	0	0	3812	1906	954	0	0	0	0	0	0	738	6638	
WALLINGFORD	20049	2636	608	11962	203	170	406	0	0	0	203	406	0	0	0	0	1521	381	0	1554	
HANDEN	23827	3356	3098	776	8518	0	259	0	259	259	0	0	0	0	0	0	202	202	0	6638	
NORTH BRANFORD	6111	962	320	385	64	540	448	0	0	0	769	106	0	0	57	0	57	0	0	2402	
EAST HAVEN	13430	548	3148	136	274	230	4517	0	0	274	410	2054	116	0	0	0	0	0	118	1605	
BETHANY	2459	107	240	54	107	0	0	906	214	80	80	0	0	0	0	0	0	41	41	589	
WOODBIDGE	11150	450	2251	112	450	0	0	0	4275	900	337	0	0	0	0	0	0	0	432	1943	
ORANGE	7667	78	630	0	78	0	0	0	78	3298	943	0	0	0	0	0	0	0	1391	1170	
WEST HAVEN	27497	282	4788	0	0	0	282	0	0	4788	10982	282	0	0	0	0	0	0	2540	3555	
BRANFORD	20508	207	2066	0	207	0	1860	0	0	0	207	13013	712	0	0	0	0	0	194	2044	
GUILFORD	18315	185	738	0	0	0	554	0	0	0	0	2585	8331	617	126	0	0	0	0	5177	
MADISON	15744	159	320	159	0	0	320	0	0	0	0	1120	2585	2993	544	0	0	0	0	7544	
CLINTON	10581	0	105	0	0	0	0	0	0	0	0	317	399	1298	2037	0	0	0	0	6424	
SUBTOTAL	234203	16126	43935	16125	11818	1044	11040	906	5070	13533	15327	21500	12249	4908	2707	57	0	1780	903	5454	49719
DURHAM	3196	0	32	224	0	0	0	0	0	0	0	32	82	28	0	895	95	65	0	1743	
MIDDLEFIELD	1769	0	0	88	0	0	0	0	0	0	0	0	0	0	0	36	389	124	0	1132	
MERIDEN	18385	0	186	3522	0	0	0	0	0	0	0	0	0	0	0	0	10092	366	0	4219	
CHESHIRE	11879	630	314	1257	314	0	0	0	0	0	0	0	0	0	0	0	0	223	5575	0	3565
SUBTOTAL	35229	630	532	5091	314	0	0	0	0	0	0	32	82	28	0	931	484	10504	5941	0	10659
TOTAL	269432	16756	44467	21216	12132	1044	11040	906	5070	13533	15327	21532	12331	4936	2707	988	484	12284	6844	5454	60378

SCENARIO 2: ONE PERCENT INCOME GROWTH 1990

1% INCOME GROWTH; CONTROL TOTALS HELD CONSTANT(CASE A)

DISTRIBUTION OF SHOPPERS GOODS PURCHASING POWER TO MAJOR RETAIL CENTERS
 NORTH HAVEN MARKET AREA
 1990
 (IN THOUSANDS OF 1977 CONSTANT DOLLARS)

SMSA CITY/TOWN	SHOPPERS GOODS PURCH POWER	CENTERS WITHIN SMSA				CENTERS OUTSIDE SMSA						TOTAL	BALANCE SHOPPERS GOODS PURCH. POWER
		NEW HAVEN CBD	MIRACLE MILE	WHITE ACRES	SUB- TOTAL SMSA	CONN. POST	TRUM- BULL SHOPNG PARK	MERI- DEN SQUARE	WEST FARMS	NAHGA- TUCK VALLEY	SUB- TOTAL NON- SMSA		
NORTH HAVEN	25966	5517	5568	155	11240	61	0	848	652	50	1611	12851	13115
NEW HAVEN	95368	29540	8583	2532	40655	512	526	548	294	87	1967	42622	52746
WALLINGFORD	39528	900	7406	84	8390	39	0	6104	2615	149	8907	17297	22231
HARDEN	55777	5537	20309	447	26293	125	544	567	913	133	2282	28575	27202
NORTH BRANFORD	11796	1011	1138	52	2201	24	0	2384	404	23	2835	5036	6760
EAST HAVEN	22181	5281	1443	280	7004	101	0	0	0	28	129	7133	15048
BETHANY	5317	1295	823	133	2251	46	0	0	47	89	182	2433	2884
WOODBIDGE	14755	1197	350	781	2328	149	0	0	218	23	390	2718	12037
ORANGE	18532	1186	348	6751	8285	1335	543	0	0	22	1900	10185	8347
WEST HAVEN	49102	7728	579	7641	15948	1925	1131	0	0	39	3095	19043	30059
BRANFORD	27889	3645	1514	162	5321	63	0	0	0	0	63	5384	22505
GUILFORD	22211	1258	392	77	1727	39	0	0	244	0	283	2010	20201
MADISON	19322	1120	0	45	1165	27	0	0	548	0	575	1740	17582
CLINTON	11617	76	0	0	76	0	0	0	0	0	0	76	11541
SUBTOTAL	419361	65291	48453	19140	132884	4446	2744	10451	5935	643	24219	157103	262258
DURHAM	6156	0	0	0	0	8	0	1363	1161	23	2555	2555	3601
MIDDLEFIELD	4257	0	0	0	0	6	0	685	1575	41	2307	2307	1950
MERIDEN	54351	0	348	36	384	19	0	26697	7430	356	34502	34886	19465
CHESHIRE	28410	808	5101	62	5971	30	0	1686	5481	1506	8703	14674	13736
SUBTOTAL	93174	808	5449	98	6355	63	0	30431	15647	1926	48067	54422	38752
TOTAL	512535	66099	53902	19238	139239	4509	2744	40882	21582	2569	72286	211525	301010

1% INCOME GROWTH; CONTROL TOTALS HELD CONSTANT(CASE A)

DISTRIBUTION OF REMAINING SHOPPERS GOODS PURCHASING POWER
 NORTH HAVEN MARKET AREA
 1990
 (IN THOUSANDS OF 1977 CONSTANT DOLLARS)

SMSA CITIES/TOWNS													NON-SMSA CITIES/TOWNS								
BALANCE SHOPPERS GOODS PURCH. POWER	NORTH HAVEN	NEW HAVEN	WAL- LING- FORD	HAM- DEN	NORTH BRAN- FORD	EAST HAVEN	BE- THA- NYBRIDGE	WOOD- BRIDGE	OR- ANGE	WEST HAVEN	BRAN- FORD	GUIL- FORD	MADI- SON	CLIN- TON	DUR- HAM	MID- FIELD	MERI- DEN	CHE- SHIRE	MIL- FORD	OTHER	
NORTH HAVEN	13115	6210	434	1878	577	123	577	0	289	145	0	0	0	0	0	0	0	297	0	2585	
NEW HAVEN	52746	2243	29726	1122	1682	0	2243	0	0	4488	2243	1122	0	0	0	0	0	0	788	7088	
WALLINGFORD	22231	2940	677	13343	226	190	452	0	0	0	226	452	0	0	0	0	1640	410	0	1675	
HARDEN	27202	3954	3650	914	10036	0	305	0	305	305	0	0	0	0	0	0	213	213	0	7062	
NORTH BRANFO	6760	1086	362	436	72	610	507	0	0	0	869	120	0	0	61	0	61	0	0	2576	
EAST HAVEN	15048	618	3553	154	310	260	5098	0	0	310	463	2318	132	0	0	0	0	0	126	1708	
BETHANY	2884	129	289	64	129	0	1092	258	96	96	0	0	0	0	0	0	0	44	44	643	
WOODBIDGE	12037	488	2439	122	488	0	0	4632	975	366	0	0	0	0	0	0	0	0	460	2068	
ORANGE	8347	86	692	0	86	0	0	86	3626	1036	0	0	0	0	0	0	0	0	1484	1250	
WEST HAVEN	30059	311	5282	0	0	0	311	0	5282	12116	311	0	0	0	0	0	0	0	2687	3759	
BRANFORD	22505	228	2273	0	228	0	2047	0	0	228	14321	785	0	0	0	0	0	0	208	2188	
GUILFORD	20201	205	817	0	0	0	614	0	0	0	2862	9222	683	141	0	0	0	0	0	5657	
MADISON	17502	180	360	180	0	0	360	0	0	0	1260	2906	3366	612	0	0	0	0	0	8358	
CLINTON	11541	0	116	0	0	0	0	0	0	0	347	436	1417	2225	0	0	0	0	0	7000	
SUBTOTAL	262258	18678	50670	18213	13834	1183	12514	1092	5570	15227	17079	23862	13601	5466	2978	61	0	1914	964	5797	53557
DURHAM	3601	0	36	253	0	0	0	0	0	0	36	92	31	0	1008	107	73	0	0	1965	
MIDDLEFIELD	1950	0	0	97	0	0	0	0	0	0	0	0	0	0	39	429	136	0	0	1249	
MERIDEN	19465	0	197	3747	0	0	0	0	0	0	0	0	0	0	0	0	10671	387	0	4463	
CHESHIRE	13736	817	407	1631	407	0	0	0	0	0	0	0	0	0	0	0	249	6237	0	3988	
SUBTOTAL	38752	817	640	5728	407	0	0	0	0	0	36	92	31	0	1047	536	11129	6624	0	11665	
TOTAL	301010	19495	51310	23941	14241	1183	12514	1092	5570	15227	17079	23898	13693	5497	2978	1108	536	13043	7588	5797	65222

IMPACT OF NORTH HAVEN MALL

SUMMARY REPORTS

SALES RECAPTURE, IMPROVED SALES INFLOW,

SALES TRANSFERS

1985 and 1990

SCENARIO 1: ZERO INCOME GROWTH 1985

SUMMARY REPORT
1985 RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
SALES LEAKAGE RECAPTURE					
CONNECTICUT POST	3860	34%	39%	1311	1504
TRUMBULL	2388	56%	61%	1331	1451
MERIDEN SQUARE	8988	60%	65%	5413	5862
WEST FARMS	5100	86%	91%	4364	4619
NAUGATUCK VALLEY	555	78%	83%	432	460
DURHAM	53	45%	50%	24	27
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1645	49%	54%	806	888
CHESHIRE	834	24%	29%	197	239
MILFORD	5037	32%	37%	1605	1857
OTHER	45911	57%	62%	26259	28555
TOTAL	74371	56%	61%	41742	45460
SALES INFLOW GAINS					
CONNECTICUT POST	52	87%	92%	45	48
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	26398	5%	5%	1245	1399
WEST FARMS	13284	76%	81%	10091	10755
NAUGATUCK VALLEY	1607	43%	48%	699	779
DURHAM	860	1%	1%	10	12
MIDDLEFIELD	447	6%	7%	26	31
MERIDEN	9700	2%	2%	157	176
CHESHIRE	5486	2%	2%	85	101
MILFORD	0	0%	0%	0	0
OTHER	9843	30%	35%	2923	3415
TOTAL	67677	23%	25%	15280	16715

LEAKAGE RECAPTURE AND INFLOW GAINS

CONNECTICUT POST	3912	35%	40%	1356	1552
TRUMBULL	2388	56%	61%	1331	1451
MERIDEN SQUARE	35386	19%	21%	6658	7261
WEST FARMS	18384	79%	84%	14455	15374
NAUGATUCK VALLEY	2162	52%	57%	1131	1239
DURHAM	913	4%	4%	34	38
MIDDLEFIELD	447	6%	7%	26	31
MERIDEN	11345	8%	9%	962	1063
CHESHIRE	6320	4%	5%	282	340
MILFORD	5037	32%	37%	1605	1857
OTHER	55754	52%	57%	29182	31969
TOTAL	142048	40%	44%	57022	62175

SUMMARY REPORT
1985 TRANSFER SALES
(THOUSANDS OF CONSTANT 1977 DOLLARS)

NEW HAVEN CBD	\$ 6833
MIRACLE MILE	\$ 5410
WHITE ACRES	\$ 1041
NORTH HAVEN	\$ 4318
NEW HAVEN	\$ 2108
WALLINGFORD	\$ 1118
HAMDEN	\$ 559
NORTH BRANFORD	\$ 76
EAST HAVEN	\$ 762
BETHANY	\$ 51
WOODBIDGE	\$ 178
ORANGE	\$ 559
WEST HAVEN	\$ 635
BRANFORD	\$ 889
GUILFORD	\$ 533
MADISON	\$ 178
CLINTON	\$ 152
TOTAL	\$ 25401

SCENARIO 1: ZERO INCOME GROWTH 1990

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SUMMARY REPORT
1990 RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
SALES LEAKAGE RECAPTURE					
CONNECTICUT POST	3904	34%	39%	1327	1522
TRUMBULL	2411	56%	61%	1344	1464
MERIDEN SQUARE	9184	60%	65%	5524	5983
WEST FARMS	5215	86%	91%	4462	4722
NAUGATUCK VALLEY	565	78%	83%	440	468
DURHAM	54	45%	50%	24	27
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1682	49%	54%	823	907
CHESHIRE	847	24%	29%	200	243
MILFORD	5093	32%	37%	1625	1879
OTHER	47072	57%	62%	26892	29246
TOTAL	76027	56%	61%	42661	46462
SALES INFLOW GAINS					
CONNECTICUT POST	54	87%	92%	47	50
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	26737	5%	6%	1326	1490
WEST FARMS	13749	76%	81%	10467	11154
NAUGATUCK VALLEY	1692	43%	48%	731	815
DURHAM	921	1%	1%	11	12
MIDDLEFIELD	471	6%	7%	28	33
MERIDEN	9779	2%	2%	166	186
CHESHIRE	5820	1%	2%	85	102
MILFORD	0	0%	0%	0	0
OTHER	10249	30%	35%	3054	3566
TOTAL	69472	23%	25%	15914	17409

LEAKAGE RECAPTURE AND INFLOW GAINS

CONNECTICUT POST	3958	35%	40%	1374	1572
TRUMBULL	2411	56%	61%	1344	1464
MERIDEN SQUARE	35921	19%	21%	6850	7473
WEST FARMS	18964	79%	84%	14929	15877
NAUGATUCK VALLEY	2257	52%	57%	1170	1283
DURHAM	975	4%	4%	35	39
MIDDLEFIELD	471	6%	7%	28	33
MERIDEN	11461	9%	10%	989	1093
CHESHIRE	6667	4%	5%	285	345
MILFORD	5093	32%	37%	1625	1879
OTHER	57321	52%	57%	29946	32812
TOTAL	145499	40%	44%	58575	63871

SUMMARY REPORT
1990 TRANSFER SALES
(THOUSANDS OF CONSTANT 1977 DOLLARS)

NEW HAVEN CBD	\$ 6396
MIRACLE MILE	\$ 5065
WHITE ACKES	\$ 975
NORTH HAVEN	\$ 4042
NEW HAVEN	\$ 1973
MALLINGFORD	\$ 1046
HARDEN	\$ 523
NORTH BRANFORD	\$ 71
EAST HAVEN	\$ 713
BETHANY	\$ 48
MOOREBRIDGE	\$ 166
ORANGE	\$ 523
WEST HAVEN	\$ 594
GRANFORD	\$ 832
GUTHRIE	\$ 499
MADISON	\$ 166
CLINTON	\$ 143
TOTAL	\$ 23777

SCENARIO 2: ONE PERCENT INCOME GROWTH 1985

SUMMARY REPORT
1985 RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
<u>SALES LEAKAGE RECAPTURE</u>					
CONNECTICUT POST	4180	34%	39%	1419	1628
TRUMBULL	2585	56%	61%	1441	1570
MERIDEN SQUARE	9732	60%	65%	5861	6347
WEST FARMS	5522	86%	91%	4725	5001
NAUGATUCK VALLEY	601	78%	83%	468	498
DURHAM	57	45%	50%	26	29
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1780	49%	54%	871	960
CHESHIRE	903	24%	29%	214	259
MILFORD	5454	32%	37%	1738	2011
OTHER	49719	57%	62%	28439	30925
TOTAL	80533	56%	61%	45201	49228
<u>SALES INFLOW GAINS</u>					
CONNECTICUT POST	56	87%	92%	49	51
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	28585	5%	5%	1348	1515
WEST FARMS	14384	76%	81%	10927	11646
NAUGATUCK VALLEY	1740	43%	48%	756	843
DURHAM	931	1%	1%	11	13
MIDDLEFIELD	484	6%	7%	29	33
MERIDEN	10504	2%	2%	170	190
CHESHIRE	5941	2%	2%	92	110
MILFORD	0	0%	0%	0	0
OTHER	10659	30%	35%	3165	3698
TOTAL	73284	23%	25%	16545	18099

LEAKAGE RECAPTURE AND INFLOW GAINS

CONNECTICUT POST	4236	35%	40%	1467	1679
TRUMBULL	2585	56%	61%	1441	1570
MERIDEN SQUARE	38317	19%	21%	7209	7862
WEST FARMS	19906	79%	84%	15652	16647
NAUGATUCK VALLEY	2341	52%	57%	1224	1341
DURHAM	988	4%	4%	36	41
MIDDLEFIELD	484	6%	7%	29	33
MERIDEN	12284	8%	9%	1041	1151
CHESHIRE	6844	4%	5%	305	369
MILFORD	5454	32%	37%	1738	2011
OTHER	60378	52%	57%	31604	34623
TOTAL	153817	40%	44%	61747	67327

SUMMARY REPORT
1985 TRANSFER SALES
(THOUSANDS OF CONSTANT 1977 DOLLARS)

NEW HAVEN CBD	\$	5505
MIRACLE MILE	\$	4359
WHITE ACRES	\$	839
NORTH HAVEN	\$	3479
NEW HAVEN	\$	1698
WALLINGFORD	\$	900
HANDEN	\$	450
NORTH BRANFORD	\$	61
EAST HAVEN	\$	614
BETHANY	\$	41
WOODBIDGE	\$	143
ORANGE	\$	450
WEST HAVEN	\$	512
BRANFORD	\$	716
GUILFORD	\$	430
MADISON	\$	143
CLINTON	\$	123
TOTAL	\$	20463

SCENARIO 2: ONE PERCENT INCOME GROWTH 1990

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SUMMARY REPORT
1990 RECAPTURE OF SALES LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
SALES LEAKAGE RECAPTURE					
CONNECTICUT POST	4446	34%	39%	1512	1735
TRUMBULL	2744	56%	61%	1530	1667
MERIDEN SQUARE	10451	60%	65%	6286	6809
WEST FARMS	5935	86%	91%	5078	5374
NAUGATUCK VALLEY	643	78%	83%	501	533
DURHAM	61	45%	50%	27	31
MIDDLEFIELD	0	0%	0%	0	0
MERIDEN	1914	49%	54%	936	1032
CHESHIRE	964	24%	29%	228	276
MILFORD	5797	32%	37%	1849	2139
OTHER	53557	57%	62%	30597	33275
TOTAL	86512	56%	61%	48544	52869
SALES INFLOW GAINS					
CONNECTICUT POST	63	87%	92%	55	58
TRUMBULL	0	0%	0%	0	0
MERIDEN SQUARE	30431	5%	6%	1509	1696
WEST FARMS	15647	76%	81%	11912	12694
NAUGATUCK VALLEY	1926	43%	48%	832	928
DURHAM	1047	1%	1%	12	14
MIDDLEFIELD	536	6%	7%	32	37
MERIDEN	11129	2%	2%	189	212
CHESHIRE	6624	1%	2%	57	116
MILFORD	0	0%	0%	0	0
OTHER	11665	30%	35%	3476	4059
TOTAL	79068	23%	25%	18113	19814

LEAKAGE RECAPTURE AND INFLOW GAINS

CONNECTICUT POST	4509	35%	40%	1567	1792
TRUMBULL	2744	56%	61%	1530	1667
MERIDEN SQUARE	40882	19%	21%	7796	8505
WEST FARMS	21582	79%	84%	16990	18069
NAUGATUCK VALLEY	2569	52%	57%	1332	1461
DURHAM	1108	4%	4%	39	44
MIDDLEFIELD	536	6%	7%	32	37
MERIDEN	13043	9%	10%	1125	1243
CHESHIRE	7588	4%	5%	325	392
MILFORD	5797	32%	37%	1849	2139
OTHER	65222	52%	57%	34073	37334
TOTAL	165580	40%	44%	66656	72683

SUMMARY REPORT
1990 TRANSFER SALES
(THOUSANDS OF CONSTANT 1977 DOLLARS)

NEW HAVEN CBD	\$ 4124
MIRACLE MILE	\$ 3265
WHITE ACRES	\$ 629
NORTH HAVEN	\$ 2606
NEW HAVEN	\$ 1272
WALLINGFORD	\$ 675
HARDEN	\$ 337
NORTH BRANFORD	\$ 46
EAST HAVEN	\$ 460
BETHANY	\$ 31
WOODBIDGE	\$ 107
ORANGE	\$ 337
WEST HAVEN	\$ 383
BRANFORD	\$ 537
GUILFORD	\$ 322
HADDISON	\$ 107
CLINTON	\$ 92
TOTAL	\$ 15330

SCENARIO 1: ZERO INCOME GROWTH 1985

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BACK-UP REPORT
1985 RECAPTURE OF LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT 1977 DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERIONS	
NORTH HAVEN					
CONNECTICUT POST	\$ 53	90%	95%	\$ 48	\$ 50
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 738	70%	75%	\$ 517	\$ 554
WEST FARMS	\$ 567	90%	95%	\$ 510	\$ 539
NAUGATUCK VALLEY	\$ 44	90%	95%	\$ 40	\$ 42
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 258	25%	30%	\$ 65	\$ 77
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2249	80%	85%	\$ 1799	\$ 1912
SUBTOTAL	\$ 3909	76%	81%	\$ 2978	\$ 3173
NEW HAVEN					
CONNECTICUT POST	\$ 443	60%	65%	\$ 266	\$ 288
TRUMBULL	\$ 455	70%	75%	\$ 319	\$ 341
MERIDEN SQUARE	\$ 474	85%	90%	\$ 403	\$ 427
WEST FARMS	\$ 254	90%	95%	\$ 229	\$ 241
NAUGATUCK VALLEY	\$ 75	80%	85%	\$ 60	\$ 64
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 681	45%	50%	\$ 306	\$ 341
OTHER	\$ 6130	75%	80%	\$ 4598	\$ 4904
SUBTOTAL	\$ 8512	73%	78%	\$ 6180	\$ 6605
WALLINGFORD					
CONNECTICUT POST	\$ 34	90%	95%	\$ 31	\$ 32
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 5229	45%	50%	\$ 2353	\$ 2615
WEST FARMS	\$ 2240	80%	85%	\$ 1792	\$ 1904
NAUGATUCK VALLEY	\$ 127	80%	85%	\$ 102	\$ 108
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 1405	45%	50%	\$ 632	\$ 703
CHESHIRE	\$ 351	25%	30%	\$ 88	\$ 105
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0

OTHER	\$ 1434	65%	70%	\$ 932	\$ 1004
SUBTOTAL	\$ 10820	55%	60%	\$ 5929	\$ 6470

HAMDEN

CONNECTICUT POST	\$ 109	70%	75%	\$ 76	\$ 82
TRUMBULL	\$ 476	75%	80%	\$ 357	\$ 381
MERIDEN SQUARE	\$ 496	80%	85%	\$ 397	\$ 422
WEST FARMS	\$ 799	90%	95%	\$ 719	\$ 759
NAUGATUCK VALLEY	\$ 116	75%	80%	\$ 87	\$ 93
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 187	70%	75%	\$ 131	\$ 140
CHESHIRE	\$ 187	20%	25%	\$ 37	\$ 47
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 6126	70%	75%	\$ 4288	\$ 4595
SUBTOTAL	\$ 8496	72%	77%	\$ 6093	\$ 6518

NORTH BRANFORD

CONNECTICUT POST	\$ 21	90%	95%	\$ 19	\$ 20
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 2051	85%	90%	\$ 1743	\$ 1846
WEST FARMS	\$ 348	90%	95%	\$ 313	\$ 331
NAUGATUCK VALLEY	\$ 20	90%	95%	\$ 18	\$ 19
DURHAM	\$ 53	45%	50%	\$ 24	\$ 27
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 53	80%	85%	\$ 42	\$ 45
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2213	70%	75%	\$ 1549	\$ 1660
SUBTOTAL	\$ 4759	78%	83%	\$ 3709	\$ 3947

EAST HAVEN

CONNECTICUT POST	\$ 87	50%	55%	\$ 44	\$ 48
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 24	90%	95%	\$ 22	\$ 23
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 109	75%	80%	\$ 82	\$ 87
OTHER	\$ 1482	70%	75%	\$ 1037	\$ 1112
SUBTOTAL	\$ 1702	70%	75%	\$ 1184	\$ 1269

BETHANY

CONNECTICUT POST	\$ 39	70%	75%	\$ 27	\$ 29
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 40	85%	90%	\$ 34	\$ 36
NAUGATUCK VALLEY	\$ 76	55%	60%	\$ 42	\$ 46
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 38	20%	25%	\$ 8	\$ 10
MILFORD	\$ 38	75%	80%	\$ 29	\$ 30
OTHER	\$ 546	45%	50%	\$ 246	\$ 273
SUBTOTAL	\$ 777	50%	55%	\$ 385	\$ 424

WOODBIDGE

CONNECTICUT POST	\$ 129	55%	60%	\$ 71	\$ 77
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 189	90%	95%	\$ 170	\$ 180
NAUGATUCK VALLEY	\$ 20	75%	80%	\$ 15	\$ 16
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 399	55%	60%	\$ 219	\$ 239
OTHER	\$ 1795	30%	35%	\$ 539	\$ 628
SUBTOTAL	\$ 2532	40%	45%	\$ 1014	\$ 1141

ORANGE

CONNECTICUT POST	\$ 1156	20%	25%	\$ 231	\$ 289
TRUMBULL	\$ 470	45%	50%	\$ 212	\$ 235
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 19	90%	95%	\$ 17	\$ 18
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 1285	20%	25%	\$ 257	\$ 321
OTHER	\$ 1084	30%	35%	\$ 325	\$ 379
SUBTOTAL	\$ 4014	26%	31%	\$ 1042	\$ 1243

WEST HAVEN

CONNECTICUT POST	\$ 1680	25%	30%	\$ 420	\$ 504
TRUMBULL	\$ 987	45%	50%	\$ 444	\$ 494
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 34	90%	95%	\$ 31	\$ 32
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 2346	25%	30%	\$ 587	\$ 704
OTHER	\$ 3283	35%	40%	\$ 1149	\$ 1313
SUBTOTAL	\$ 8330	32%	37%	\$ 2630	\$ 3047

BRANFORD

CONNECTICUT POST	\$ 54	70%	75%	\$ 38	\$ 41
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 179	70%	75%	\$ 125	\$ 134
OTHER	\$ 1891	70%	75%	\$ 1324	\$ 1418
SUBTOTAL	\$ 2124	70%	75%	\$ 1487	\$ 1593

GUILFORD

CONNECTICUT POST	\$ 33	70%	75%	\$ 23	\$ 25
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 206	90%	95%	\$ 185	\$ 196
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 4781	65%	70%	\$ 3108	\$ 3347
SUBTOTAL	\$ 5020	66%	71%	\$ 3316	\$ 3567

MADISON

CONNECTICUT POST	\$ 22	80%	85%	\$ 18	\$ 19
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 457	90%	95%	\$ 411	\$ 434
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 6966	60%	65%	\$ 4180	\$ 4528
SUBTOTAL	\$ 7445	62%	67%	\$ 4609	\$ 4981

CLINTON

CONNECTICUT POST	\$ 0	0%	0%	\$ 0	\$ 0
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 5931	20%	25%	\$ 1186	\$ 1483
SUBTOTAL	\$ 5931	20%	25%	\$ 1186	\$ 1483

DURHAM

CONNECTICUT POST	\$ 7	90%	95%	\$ 6	\$ 7
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1117	40%	45%	\$ 447	\$ 503
WEST FARMS	\$ 952	75%	80%	\$ 714	\$ 762
NAUGATUCK VALLEY	\$ 19	80%	85%	\$ 15	\$ 16
DURHAM	\$ 827	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 88	30%	35%	\$ 26	\$ 31
MERIDEN	\$ 60	40%	45%	\$ 24	\$ 27
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1609	30%	35%	\$ 483	\$ 563
SUBTOTAL	\$ 4679	37%	41%	\$ 1715	\$ 1908

MIDDLEFIELD

CONNECTICUT POST	\$ 5	90%	95%	\$ 5	\$ 5
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 573	30%	35%	\$ 172	\$ 201
WEST FARMS	\$ 1318	75%	80%	\$ 989	\$ 1054
NAUGATUCK VALLEY	\$ 34	90%	95%	\$ 31	\$ 32
DURHAM	\$ 33	30%	35%	\$ 10	\$ 12
MIDDLEFIELD	\$ 359	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 114	35%	40%	\$ 40	\$ 46
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1045	30%	35%	\$ 314	\$ 366
SUBTOTAL	\$ 3481	45%	49%	\$ 1559	\$ 1715

MERIDEN

CONNECTICUT POST	\$ 16	80%	85%	\$ 13	\$ 14
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$23316	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 6489	70%	75%	\$ 4542	\$ 4867
NAUGATUCK VALLEY	\$ 311	70%	75%	\$ 218	\$ 233
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 9320	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 338	25%	30%	\$ 85	\$ 101
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 3897	25%	30%	\$ 974	\$ 1169
SUBTOTAL	\$ 43687	13%	15%	\$ 5832	\$ 6384

CHESHIRE

CONNECTICUT POST	\$ 24	90%	95%	\$ 22	\$ 23
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1392	45%	50%	\$ 626	\$ 696
WEST FARMS	\$ 4525	85%	90%	\$ 3846	\$ 4073
NAUGATUCK VALLEY	\$ 1243	35%	40%	\$ 435	\$ 497
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 206	45%	50%	\$ 93	\$ 103
CHESHIRE	\$ 5148	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 3292	35%	40%	\$ 1152	\$ 1317
SUBTOTAL	\$ 15830	39%	42%	\$ 6174	\$ 6708

TRANSFER SALES MATRIX
NORTH HAVEN MALL
1985
(THOUSANDS OF CONSTANT 1977 DOLLARS)

	NEW HAVEN CBD	MIRCL MILE	WHITE ACRES	NORTH HAVEN	NEW WALLING- HAVEN	FORD	HMDEN	NORTH BRNFRD	EAST HAVEN	BETH ANY	WOOD- BRIDGE	ORNGE	WEST HAVEN	BRAN- FORD	GUIL- FORD	MADI- SON	CLINTON	TOTAL
NORTH HAVEN	1651	1295	51	1143	76	152	76	25	76	0	25	25	0	0	0	0	0	4598
NEW HAVEN	1727	737	254	787	737	178	178	0	229	0	0	229	229	102	0	0	0	5385
WALLINGFORD	279	1321	25	660	127	305	25	25	51	0	0	0	25	51	0	0	0	2896
HAMDEN	965	1168	102	787	229	102	152	0	51	0	25	25	25	0	0	0	0	3632
NORTH BRANFORD	178	254	0	229	25	51	25	25	51	0	0	0	0	76	25	0	0	940
EAST HAVEN	610	178	51	127	279	25	25	0	102	0	0	25	25	102	25	0	0	1575
BETHANY	229	51	51	25	25	0	0	0	0	51	0	0	0	0	0	0	0	432
WOODBIDGE	203	25	25	127	127	25	25	0	0	0	127	25	25	0	0	0	0	737
ORANGE	25	0	178	25	25	0	0	0	0	0	0	102	25	0	0	0	0	381
WEST HAVEN	229	25	203	76	127	0	0	0	25	0	0	127	279	25	0	0	0	1118
BRANFORD	432	254	25	51	203	0	25	0	102	0	0	0	0	330	0	0	0	1422
GUILFORD	152	102	25	76	51	0	0	0	51	0	0	0	0	127	279	25	0	889
MADISON	127	0	0	51	25	25	0	0	25	0	0	0	0	51	178	102	51	635
CLINTON	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	51	102	203
DURHAM	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	25
MIDDLEFIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	0	25	0	25	178	0	0	0	0	0	0	0	0	0	0	0	229
CHESHIRE	25	0	25	152	25	51	25	0	0	0	0	0	0	0	0	0	0	305
TOTAL	6833	5410	1041	4318	2108	1118	559	76	762	51	178	559	635	889	533	178	152	25401

IMPACT OF NORTH HAVEN MALL
DETAILED SUMMARY REPORTS
SALES RECAPTURE, IMPROVED SALES INFLOW,
SALES TRANSFERS
1985 and 1990

SCENARIO 1: ZERO INCOME GROWTH 1990

TY CPT90.RPT

BACK-UP REPORT
1990 RECAPTURE OF LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT 1977 DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
NORTH HAVEN					
CONNECTICUT POST	\$ 53	90%	95%	\$ 48	\$ 50
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 745	70%	75%	\$ 522	\$ 559
WEST FARMS	\$ 573	90%	95%	\$ 516	\$ 544
NAUGATUCK VALLEY	\$ 44	90%	95%	\$ 40	\$ 42
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 261	25%	30%	\$ 65	\$ 78
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2271	80%	85%	\$ 1817	\$ 1930
SUBTOTAL	\$ 3947	76%	81%	\$ 3007	\$ 3204
NEW HAVEN					
CONNECTICUT POST	\$ 450	60%	65%	\$ 270	\$ 293
TRUMBULL	\$ 462	70%	75%	\$ 323	\$ 347
MERIDEN SQUARE	\$ 482	85%	90%	\$ 410	\$ 434
WEST FARMS	\$ 258	90%	95%	\$ 232	\$ 245
NAUGATUCK VALLEY	\$ 76	80%	85%	\$ 61	\$ 65
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 692	45%	50%	\$ 311	\$ 346
OTHER	\$ 6230	75%	80%	\$ 4673	\$ 4984
SUBTOTAL	\$ 8650	73%	78%	\$ 6280	\$ 6713

WALLINGFORD

CONNECTICUT POST	\$ 35	90%	95%	\$ 32	\$ 33
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 5364	45%	50%	\$ 2414	\$ 2682
WEST FARMS	\$ 2298	80%	85%	\$ 1838	\$ 1953
NAUGATUCK VALLEY	\$ 131	80%	85%	\$ 105	\$ 111
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 1441	45%	50%	\$ 648	\$ 721
CHESHIRE	\$ 360	25%	30%	\$ 90	\$ 108
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1472	65%	70%	\$ 957	\$ 1030
SUBTOTAL	\$ 11101	55%	60%	\$ 6084	\$ 6639

HAMDEN

CONNECTICUT POST	\$ 109	70%	75%	\$ 76	\$ 82
TRUMBULL	\$ 478	75%	80%	\$ 359	\$ 382
MERIDEN SQUARE	\$ 498	80%	85%	\$ 398	\$ 423
WEST FARMS	\$ 902	90%	95%	\$ 722	\$ 762
NAUGATUCK VALLEY	\$ 117	75%	80%	\$ 88	\$ 94
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 187	70%	75%	\$ 131	\$ 140
CHESHIRE	\$ 187	20%	25%	\$ 37	\$ 47
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 6155	70%	75%	\$ 4309	\$ 4616
SUBTOTAL	\$ 8533	72%	77%	\$ 6120	\$ 6546

NORTH BRANFORD

CONNECTICUT POST	\$ 21	90%	95%	\$ 19	\$ 20
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 2095	85%	90%	\$ 1781	\$ 1886
WEST FARMS	\$ 355	90%	95%	\$ 320	\$ 337
NAUGATUCK VALLEY	\$ 20	90%	95%	\$ 18	\$ 19
DURHAM	\$ 54	45%	50%	\$ 24	\$ 27
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 54	80%	85%	\$ 43	\$ 48
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2262	70%	75%	\$ 1583	\$ 1697
SUBTOTAL	\$ 4861	78%	83%	\$ 3788	\$ 4031

EAST HAVEN

CONNECTICUT POST	\$ 88	50%	55%	\$ 44	\$ 48
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 24	90%	95%	\$ 22	\$ 23
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 111	75%	80%	\$ 83	\$ 89
OTHER	\$ 1502	70%	75%	\$ 1051	\$ 1127
SUBTOTAL	\$ 1725	70%	75%	\$ 1200	\$ 1287

BETHANY

CONNECTICUT POST	\$ 40	70%	75%	\$ 28	\$ 30
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 41	85%	90%	\$ 35	\$ 37
NAUGATUCK VALLEY	\$ 78	55%	60%	\$ 43	\$ 47
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 39	20%	25%	\$ 8	\$ 10
MILFORD	\$ 39	75%	80%	\$ 29	\$ 31
OTHER	\$ 565	45%	50%	\$ 254	\$ 283
SUBTOTAL	\$ 802	50%	55%	\$ 397	\$ 437

WOODBIDGE

CONNECTICUT POST	\$ 131	55%	60%	\$ 72	\$ 79
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 192	90%	95%	\$ 173	\$ 182
NAUGATUCK VALLEY	\$ 21	75%	80%	\$ 16	\$ 17
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 404	55%	60%	\$ 222	\$ 242
OTHER	\$ 1817	30%	35%	\$ 545	\$ 636
SUBTOTAL	\$ 2565	40%	45%	\$ 1028	\$ 1156

ORANGE

CONNECTICUT POST	\$ 1173	20%	25%	\$ 235	\$ 293
TRUMBULL	\$ 477	45%	50%	\$ 215	\$ 239
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 19	90%	95%	\$ 17	\$ 18
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 1304	20%	25%	\$ 261	\$ 326
OTHER	\$ 1100	30%	35%	\$ 330	\$ 385
SUBTOTAL	\$ 4073	26%	31%	\$ 1057	\$ 1261

WEST HAVEN

CONNECTICUT POST	\$ 1691	25%	30%	\$ 423	\$ 507
TRUMBULL	\$ 994	45%	50%	\$ 447	\$ 497
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 35	90%	95%	\$ 32	\$ 33
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 2361	25%	30%	\$ 590	\$ 708
OTHER	\$ 3305	35%	40%	\$ 1157	\$ 1322
SUBTOTAL	\$ 8386	32%	37%	\$ 2649	\$ 3068

BRANFORD

CONNECTICUT POST	\$ 55	70%	75%	\$ 39	\$ 41
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 182	70%	75%	\$ 127	\$ 137
OTHER	\$ 1927	70%	75%	\$ 1349	\$ 1445

SUBTOTAL	\$ 2164	70%	75%	\$ 1515	\$ 1623
GUILFORD					
CONNECTICUT POST	\$ 35	70%	75%	\$ 25	\$ 26
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 214	90%	95%	\$ 193	\$ 203
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 4970	65%	70%	\$ 3231	\$ 3479
SUBTOTAL	\$ 5219	66%	71%	\$ 3448	\$ 3709
MADISON					
CONNECTICUT POST	\$ 23	80%	85%	\$ 18	\$ 20
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 482	90%	95%	\$ 434	\$ 458
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 7345	60%	65%	\$ 4407	\$ 4774
SUBTOTAL	\$ 7850	62%	67%	\$ 4859	\$ 5252
CLINTON					
CONNECTICUT POST	\$ 0	0%	0%	\$ 0	\$ 0
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 6151	20%	25%	\$ 1230	\$ 1538
SUBTOTAL	\$ 6151	20%	25%	\$ 1230	\$ 1538

DURHAM

CONNECTICUT POST	\$ 7	90%	95%	\$ 6	\$ 7
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1197	40%	45%	\$ 479	\$ 539
WEST FARMS	\$ 1020	75%	80%	\$ 765	\$ 816
NAUGATUCK VALLEY	\$ 20	80%	85%	\$ 16	\$ 17
DURHAM	\$ 886	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 94	30%	35%	\$ 28	\$ 33
MERIDEN	\$ 64	40%	45%	\$ 26	\$ 29
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1727	30%	35%	\$ 518	\$ 604
SUBTOTAL	\$ 5015	37%	41%	\$ 1838	\$ 2044

MIDDLEFIELD

CONNECTICUT POST	\$ 5	90%	95%	\$ 5	\$ 5
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 402	30%	35%	\$ 181	\$ 211
WEST FARMS	\$ 1384	75%	80%	\$ 1038	\$ 1107
NAUGATUCK VALLEY	\$ 36	90%	95%	\$ 32	\$ 34
DURHAM	\$ 35	30%	35%	\$ 11	\$ 12
MIDDLEFIELD	\$ 377	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 120	35%	40%	\$ 42	\$ 48
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1096	30%	35%	\$ 329	\$ 384
SUBTOTAL	\$ 3655	45%	49%	\$ 1637	\$ 1801

MERIDEN

CONNECTICUT POST	\$ 16	80%	85%	\$ 13	\$ 14
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 23457	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 6529	70%	75%	\$ 4570	\$ 4897
NAUGATUCK VALLEY	\$ 313	70%	75%	\$ 219	\$ 235
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 9376	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 340	25%	30%	\$ 85	\$ 102
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 3921	25%	30%	\$ 980	\$ 1176
SUBTOTAL	\$ 43952	13%	15%	\$ 5867	\$ 6423

CHESHIRE

CONNECTICUT POST	\$ 26	90%	95%	\$ 23	\$ 25
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1481	45%	50%	\$ 666	\$ 741
WEST FARMS	\$ 4816	85%	90%	\$ 4094	\$ 4334
NAUGATUCK VALLEY	\$ 1323	35%	40%	\$ 463	\$ 529
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 219	45%	50%	\$ 99	\$ 110
CHESHIRE	\$ 5480	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 3505	35%	40%	\$ 1227	\$ 1402
SUBTOTAL	\$ 16850	39%	42%	\$ 6572	\$ 7140

TRANSFER SALES MATRIX

NORTH HAVEN MALL

1990

(THOUSANDS OF CONSTANT 1977 DOLLARS)

	NEW HAVEN CBD	MIRCL MILE	WHITE ACRES	NORTH HAVEN	NEW WALLING- HAVEN	FORD	HMDEN	NORTH BRNFRD	EAST HAVEN	BETH ANY	WOOD- BRIDGE	ORNGE	WEST HAVEN	BRAN- FORD	GUIL- FORD	MADI- SON	CLINTON	TOTAL
NORTH HAVEN	1546	1213	48	1070	71	143	71	24	71	0	24	24	0	0	0	0	0	4304
NEW HAVEN	1617	690	238	737	690	166	166	0	214	0	0	214	214	95	0	0	0	5041
WALLINGFORD	262	1236	24	618	119	285	24	24	48	0	0	0	24	48	0	0	0	2711
HAMDEN	904	1094	95	737	214	95	143	0	48	0	24	24	24	0	0	0	0	3400
NORTH BRANFORD	166	238	0	214	24	48	24	24	48	0	0	0	0	71	24	0	0	880
EAST HAVEN	571	166	48	119	262	24	24	0	95	0	0	24	24	95	24	0	0	1474
BETHANY	214	48	48	24	24	0	0	0	0	48	0	0	0	0	0	0	0	404
WOODBIDGE	190	24	24	119	119	24	24	0	0	0	119	24	24	0	0	0	0	690
ORANGE	24	0	166	24	24	0	0	0	0	0	0	95	24	0	0	0	0	357
WEST HAVEN	214	24	190	71	119	0	0	0	24	0	0	119	262	24	0	0	0	1046
BRANFORD	404	238	24	48	190	0	24	0	95	0	0	0	0	309	0	0	0	1332
GUILFORD	143	95	24	71	48	0	0	0	48	0	0	0	0	119	262	24	0	832
MADISON	119	0	0	48	24	24	0	0	24	0	0	0	0	48	166	95	48	594
CLINTON	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24	48	95	190
DURHAM	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	24
MIDDLEFIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	0	24	0	24	166	0	0	0	0	0	0	0	0	0	0	0	214
CHESHIRE	24	0	24	143	24	48	24	0	0	0	0	0	0	0	0	0	0	285
TOTAL	6396	5065	975	4042	1973	1046	523	71	713	48	166	523	594	832	499	166	143	23777

SCENARIO 2: ONE PERCENT INCOME GROWTH 1985

TY CPTR85.RPT

BACK-UP REPORT
1985 RECAPTURE OF LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT 1977 DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
NORTH HAVEN					
CONNECTICUT POST	\$ 57	90%	95%	\$ 51	\$ 54
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 799	70%	75%	\$ 559	\$ 599
WEST FARMS	\$ 614	90%	95%	\$ 553	\$ 583
NAUGATUCK VALLEY	\$ 47	90%	95%	\$ 42	\$ 45
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 279	25%	30%	\$ 70	\$ 84
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2436	80%	85%	\$ 1949	\$ 2071
SUBTOTAL	\$ 4232	76%	81%	\$ 3224	\$ 3436
NEW HAVEN					
CONNECTICUT POST	\$ 480	60%	65%	\$ 288	\$ 312
TRUMBULL	\$ 492	70%	75%	\$ 344	\$ 369
MERIDEN SQUARE	\$ 513	85%	90%	\$ 436	\$ 462
WEST FARMS	\$ 275	90%	95%	\$ 248	\$ 261
NAUGATUCK VALLEY	\$ 81	80%	85%	\$ 65	\$ 69
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 738	45%	50%	\$ 332	\$ 369
OTHER	\$ 6638	75%	80%	\$ 4979	\$ 5310
SUBTOTAL	\$ 9217	73%	78%	\$ 6691	\$ 7152

WALLINGFORD

CONNECTICUT POST	\$ 36	90%	95%	\$ 32	\$ 34
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 5662	45%	50%	\$ 2548	\$ 2831
WEST FARMS	\$ 2425	80%	85%	\$ 1940	\$ 2061
NAUGATUCK VALLEY	\$ 138	80%	85%	\$ 110	\$ 117
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 1521	45%	50%	\$ 684	\$ 761
CHESHIRE	\$ 381	25%	30%	\$ 95	\$ 114
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1554	65%	70%	\$ 1010	\$ 1088
SUBTOTAL	\$ 11717	55%	60%	\$ 6421	\$ 7006

HANDEN

CONNECTICUT POST	\$ 118	70%	75%	\$ 83	\$ 89
TRUMBULL	\$ 515	75%	80%	\$ 386	\$ 412
MERIDEN SQUARE	\$ 537	80%	85%	\$ 430	\$ 456
WEST FARMS	\$ 865	90%	95%	\$ 779	\$ 822
NAUGATUCK VALLEY	\$ 126	75%	80%	\$ 95	\$ 101
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 202	70%	75%	\$ 141	\$ 152
CHESHIRE	\$ 202	20%	25%	\$ 40	\$ 51
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 6638	70%	75%	\$ 4647	\$ 4979
SUBTOTAL	\$ 9203	72%	77%	\$ 6600	\$ 7060

NORTH BRANFORD

CONNECTICUT POST	\$ 22	90%	95%	\$ 20	\$ 21
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 2221	85%	90%	\$ 1888	\$ 1999
WEST FARMS	\$ 377	90%	95%	\$ 339	\$ 358
NAUGATUCK VALLEY	\$ 21	90%	95%	\$ 19	\$ 20
DURHAM	\$ 57	45%	50%	\$ 26	\$ 29
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 57	80%	85%	\$ 46	\$ 48
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2402	70%	75%	\$ 1681	\$ 1802
SUBTOTAL	\$ 5157	78%	83%	\$ 4019	\$ 4276

EAST HAVEN

CONNECTICUT POST	\$ 95	50%	55%	\$ 48	\$ 52
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 26	90%	95%	\$ 23	\$ 25
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 118	75%	80%	\$ 89	\$ 94
OTHER	\$ 1605	70%	75%	\$ 1124	\$ 1204
SUBTOTAL	\$ 1844	70%	75%	\$ 1283	\$ 1375

BETHANY

CONNECTICUT POST	\$ 42	70%	75%	\$ 29	\$ 32
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 43	85%	90%	\$ 37	\$ 39
NAUGATUCK VALLEY	\$ 82	55%	60%	\$ 45	\$ 49
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 41	20%	25%	\$ 8	\$ 10
MILFORD	\$ 41	75%	80%	\$ 31	\$ 33
OTHER	\$ 589	45%	50%	\$ 265	\$ 295
SUBTOTAL	\$ 838	50%	55%	\$ 415	\$ 457

WOODBIDGE

CONNECTICUT POST	\$ 140	55%	60%	\$ 77	\$ 84
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 205	90%	95%	\$ 185	\$ 195
NAUGATUCK VALLEY	\$ 22	75%	80%	\$ 17	\$ 18
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 432	55%	60%	\$ 238	\$ 259
OTHER	\$ 1943	30%	35%	\$ 583	\$ 680
SUBTOTAL	\$ 2742	40%	45%	\$ 1099	\$ 1236

ORANGE

CONNECTICUT POST	\$ 1252	20%	25%	\$ 250	\$ 313
TRUMBULL	\$ 509	45%	50%	\$ 229	\$ 255
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 21	90%	95%	\$ 19	\$ 20
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 1391	20%	25%	\$ 278	\$ 348
OTHER	\$ 1170	30%	35%	\$ 351	\$ 410
SUBTOTAL	\$ 4343	26%	31%	\$ 1128	\$ 1345

WEST HAVEN

CONNECTICUT POST	\$ 1819	25%	30%	\$ 455	\$ 546
TRUMBULL	\$ 1069	45%	50%	\$ 481	\$ 535
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 37	90%	95%	\$ 33	\$ 35
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 2540	25%	30%	\$ 635	\$ 762
OTHER	\$ 3555	35%	40%	\$ 1244	\$ 1422
SUBTOTAL	\$ 9020	32%	37%	\$ 2848	\$ 3299

BRANFORD

CONNECTICUT POST	\$ 59	70%	75%	\$ 41	\$ 44
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 194	70%	75%	\$ 136	\$ 146
OTHER	\$ 2044	70%	75%	\$ 1431	\$ 1533
SUBTOTAL	\$ 2297	70%	75%	\$ 1608	\$ 1723

GUILFORD

CONNECTICUT POST	\$ 36	70%	75%	\$ 25	\$ 27
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 223	90%	95%	\$ 201	\$ 212
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 5177	65%	70%	\$ 3365	\$ 3624
SUBTOTAL	\$ 5436	66%	71%	\$ 3591	\$ 3863

MADISON

CONNECTICUT POST	\$ 24	80%	85%	\$ 19	\$ 20
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 495	90%	95%	\$ 446	\$ 470
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 7544	60%	65%	\$ 4526	\$ 4904
SUBTOTAL	\$ 8063	62%	67%	\$ 4991	\$ 5394

CLINTON

CONNECTICUT POST	\$ 0	0%	0%	\$ 0	\$ 0
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 6424	20%	25%	\$ 1285	\$ 1606
SUBTOTAL	\$ 6424	20%	25%	\$ 1285	\$ 1606

DURHAM

CONNECTICUT POST	\$ 7	90%	95%	\$ 6	\$ 7
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1210	40%	45%	\$ 484	\$ 545
WEST FARMS	\$ 1031	75%	80%	\$ 773	\$ 825
NAUGATUCK VALLEY	\$ 20	80%	85%	\$ 16	\$ 17
DURHAM	\$ 895	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 95	30%	35%	\$ 29	\$ 33
MERIDEN	\$ 65	40%	45%	\$ 26	\$ 29
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1743	30%	35%	\$ 523	\$ 610
SUBTOTAL	\$ 5066	37%	41%	\$ 1857	\$ 2066

MIDDLEFIELD

CONNECTICUT POST	\$ 5	90%	95%	\$ 5	\$ 5
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 620	30%	35%	\$ 186	\$ 217
WEST FARMS	\$ 1427	75%	80%	\$ 1070	\$ 1142
NAUGATUCK VALLEY	\$ 37	90%	95%	\$ 33	\$ 35
DURHAM	\$ 36	30%	35%	\$ 11	\$ 13
MIDDLEFIELD	\$ 389	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 124	35%	40%	\$ 43	\$ 50
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1132	30%	35%	\$ 340	\$ 396
SUBTOTAL	\$ 3770	45%	49%	\$ 1688	\$ 1857

MERIDEN

CONNECTICUT POST	\$ 18	80%	85%	\$ 14	\$ 15
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$25248	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 7027	70%	75%	\$ 4919	\$ 5270
NAUGATUCK VALLEY	\$ 337	70%	75%	\$ 236	\$ 253
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$10092	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 366	25%	30%	\$ 92	\$ 110
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 4219	25%	30%	\$ 1055	\$ 1266
SUBTOTAL	\$ 47307	13%	15%	\$ 6315	\$ 6914

CHESHIRE

CONNECTICUT POST	\$ 26	90%	95%	\$ 23	\$ 25
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1507	45%	50%	\$ 678	\$ 754
WEST FARMS	\$ 4899	85%	90%	\$ 4164	\$ 4409
NAUGATUCK VALLEY	\$ 1346	35%	40%	\$ 471	\$ 538
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 223	45%	50%	\$ 100	\$ 112
CHESHIRE	\$ 5575	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 3565	35%	40%	\$ 1248	\$ 1426
SUBTOTAL	\$ 17141	39%	42%	\$ 6685	\$ 7263

TRANSFER SALES MATRIX
NORTH HAVEN MALL
1985
(THOUSANDS OF CONSTANT 1977 DOLLARS)

	NEW HAVEN CBD	MIRCL MILE	WHITE ACRES	NORTH HAVEN	NEW WALLING- HAVEN	FORD	HMDEN	BRNFRD	NORTH HAVEN	EAST HAVEN	BETH ANY	WOOD- BRIDGE	ORNGE	WEST HAVEN	BRAN- FORD	GUIL- FORD	MADI- SON	CLINTON	TOTAL
NORTH HAVEN	1330	1044	41	921	61	123	61	20	61	0	20	20	0	0	0	0	0	0	3704
NEW HAVEN	1391	593	205	634	593	143	143	0	184	0	0	184	184	82	0	0	0	0	4338
WALLINGFORD	225	1064	20	532	102	246	20	20	41	0	0	0	20	41	0	0	0	0	2333
HAMDEN	778	941	82	634	184	82	123	0	41	0	20	20	20	0	0	0	0	0	2926
NORTH BRANFORD	143	205	0	184	20	41	20	20	41	0	0	0	0	61	20	0	0	0	757
EAST HAVEN	491	143	41	102	225	20	20	0	82	0	0	20	20	82	20	0	0	0	1269
BETHANY	184	41	41	20	20	0	0	0	0	41	0	0	0	0	0	0	0	0	348
WOODBRIIDGE	164	20	20	102	102	20	20	0	0	0	102	20	20	0	0	0	0	0	593
ORANGE	20	0	143	20	20	0	0	0	0	0	0	82	20	0	0	0	0	0	367
WEST HAVEN	184	20	164	61	102	0	0	0	20	0	0	102	225	20	0	0	0	0	900
BRANFORD	348	205	20	41	164	0	20	0	82	0	0	0	0	264	0	0	0	0	1146
GUILFORD	123	82	20	61	41	0	0	0	41	0	0	0	0	102	225	20	0	0	716
MADISON	102	0	0	41	20	20	0	0	20	0	0	0	0	41	143	82	41	512	512
CLINTON	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	41	82	164	164
DURHAM	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	20
MIDDLEFIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	0	20	0	20	143	0	0	0	0	0	0	0	0	0	0	0	0	184
CRESHIRE	20	0	20	123	20	41	20	0	0	0	0	0	0	0	0	0	0	0	246
TOTAL	5505	4359	839	3479	1698	900	450	61	614	41	143	450	512	716	430	143	123	20463	

SCENARIO 2: ONE PERCENT INCOME GROWTH 1990

TYCU
17 INCOME GROWTH
717

*TY CPTR90.RPT

BACK-UP REPORT
1990 RECAPTURE OF LEAKAGE AND IMPROVED INFLOW
NORTH HAVEN MALL
(THOUSANDS OF CONSTANT 1977 DOLLARS)

	BASELINE SALES	DIVERSION PERCENTAGES		SALES DIVERSIONS	
NORTH HAVEN					
CONNECTICUT POST	\$ 61	90%	95%	\$ 55	\$ 58
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 848	70%	75%	\$ 594	\$ 636
WEST FARMS	\$ 652	90%	95%	\$ 587	\$ 619
NAUGATUCK VALLEY	\$ 50	90%	95%	\$ 45	\$ 48
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 297	25%	30%	\$ 74	\$ 89
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2585	80%	85%	\$ 2068	\$ 2197
SUBTOTAL	\$ 4493	76%	81%	\$ 3423	\$ 3647
NEW HAVEN					
CONNECTICUT POST	\$ 512	60%	65%	\$ 307	\$ 333
TRUMBULL	\$ 526	70%	75%	\$ 368	\$ 395
MERIDEN SQUARE	\$ 548	85%	90%	\$ 466	\$ 493
WEST FARMS	\$ 294	90%	95%	\$ 265	\$ 279
NAUGATUCK VALLEY	\$ 87	80%	85%	\$ 70	\$ 74
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 788	45%	50%	\$ 355	\$ 394
OTHER	\$ 7088	75%	80%	\$ 5316	\$ 5670
SUBTOTAL	\$ 9843	73%	78%	\$ 7146	\$ 7638

WALLINGFORD

CONNECTICUT POST	\$ 39	90%	95%	\$ 35	\$ 37
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 6104	45%	50%	\$ 2747	\$ 3052
WEST FARMS	\$ 2615	80%	85%	\$ 2092	\$ 2223
NAUGATUCK VALLEY	\$ 149	80%	85%	\$ 119	\$ 127
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 1640	45%	50%	\$ 738	\$ 820
CHESHIRE	\$ 410	25%	30%	\$ 103	\$ 123
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1675	65%	70%	\$ 1089	\$ 1173
SUBTOTAL	\$ 12632	55%	60%	\$ 6922	\$ 7554

HAMDEN

CONNECTICUT POST	\$ 125	70%	75%	\$ 88	\$ 94
TRUMBULL	\$ 544	75%	80%	\$ 408	\$ 435
MERIDEN SQUARE	\$ 567	80%	85%	\$ 454	\$ 482
WEST FARMS	\$ 913	90%	95%	\$ 822	\$ 867
NAUGATUCK VALLEY	\$ 133	75%	80%	\$ 100	\$ 106
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 213	70%	75%	\$ 149	\$ 160
CHESHIRE	\$ 213	20%	25%	\$ 43	\$ 53
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 7002	70%	75%	\$ 4901	\$ 5252
SUBTOTAL	\$ 9710	72%	77%	\$ 6964	\$ 7449

NORTH BRANFORD

CONNECTICUT POST	\$ 24	90%	95%	\$ 22	\$ 23
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 2384	85%	90%	\$ 2026	\$ 2146
WEST FARMS	\$ 404	90%	95%	\$ 364	\$ 384
NAUGATUCK VALLEY	\$ 23	90%	95%	\$ 21	\$ 22
DURHAM	\$ 61	45%	50%	\$ 27	\$ 31
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 61	80%	85%	\$ 49	\$ 52
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 2576	70%	75%	\$ 1803	\$ 1932
SUBTOTAL	\$ 5533	78%	83%	\$ 4312	\$ 4588

EAST HAVEN

CONNECTICUT POST	\$ 101	50%	55%	\$ 51	\$ 56
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 28	90%	95%	\$ 25	\$ 27
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 126	75%	80%	\$ 95	\$ 101
OTHER	\$ 1708	70%	75%	\$ 1196	\$ 1281
SUBTOTAL	\$ 1963	70%	75%	\$ 1366	\$ 1464

BETHANY

CONNECTICUT POST	\$ 46	70%	75%	\$ 32	\$ 35
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 47	85%	90%	\$ 40	\$ 42
NAUGATUCK VALLEY	\$ 89	55%	60%	\$ 49	\$ 53
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 44	20%	25%	\$ 9	\$ 11
MILFORD	\$ 44	75%	80%	\$ 33	\$ 35
OTHER	\$ 643	45%	50%	\$ 289	\$ 322
SUBTOTAL	\$ 913	50%	55%	\$ 452	\$ 498

WOODBIDGE

CONNECTICUT POST	\$ 149	55%	60%	\$ 82	\$ 89
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 218	90%	95%	\$ 196	\$ 207
NAUGATUCK VALLEY	\$ 23	75%	80%	\$ 17	\$ 18
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 460	55%	60%	\$ 253	\$ 270
OTHER	\$ 2068	30%	35%	\$ 620	\$ 724
SUBTOTAL	\$ 2918	40%	45%	\$ 1169	\$ 1315

ORANGE

CONNECTICUT POST	\$ 1335	20%	25%	\$ 267	\$ 334
TRUMBULL	\$ 543	45%	50%	\$ 244	\$ 272
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 22	90%	95%	\$ 20	\$ 21
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 1484	20%	25%	\$ 297	\$ 371
OTHER	\$ 1250	30%	35%	\$ 375	\$ 438
SUBTOTAL	\$ 4634	24%	31%	\$ 1203	\$ 1435

WEST HAVEN

CONNECTICUT POST	\$ 1925	25%	30%	\$ 481	\$ 578
TRUMBULL	\$ 1131	45%	50%	\$ 509	\$ 546
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 39	90%	95%	\$ 35	\$ 37
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 2687	25%	30%	\$ 672	\$ 806
OTHER	\$ 3759	35%	40%	\$ 1316	\$ 1504
SUBTOTAL	\$ 9541	32%	37%	\$ 3013	\$ 3490

BRANFORD

CONNECTICUT POST	\$ 63	70%	75%	\$ 44	\$ 47
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 208	70%	75%	\$ 146	\$ 156
OTHER	\$ 2188	70%	75%	\$ 1532	\$ 1641
SUBTOTAL	\$ 2459	70%	75%	\$ 1721	\$ 1844

GUILFORD

CONNECTICUT POST	\$ 39	70%	75%	\$ 27	\$ 29
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 244	90%	95%	\$ 220	\$ 232
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 5657	65%	70%	\$ 3677	\$ 3960
SUBTOTAL	\$ 5940	66%	71%	\$ 3924	\$ 4221

MADISON

CONNECTICUT POST	\$ 27	80%	85%	\$ 22	\$ 23
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 548	90%	95%	\$ 493	\$ 521
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 8358	60%	65%	\$ 5015	\$ 5433
SUBTOTAL	\$ 8933	62%	67%	\$ 5530	\$ 5976

CLINTON

CONNECTICUT POST	\$ 0	0%	0%	\$ 0	\$ 0
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 0	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 0	0%	0%	\$ 0	\$ 0
NAUGATUCK VALLEY	\$ 0	0%	0%	\$ 0	\$ 0
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 0	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 7000	20%	25%	\$ 1400	\$ 1750
SUBTOTAL	\$ 7000	20%	25%	\$ 1400	\$ 1750

DURHAM

CONNECTICUT POST	\$ 8	90%	95%	\$ 7	\$ 8
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1363	40%	45%	\$ 545	\$ 613
WEST FARMS	\$ 1161	75%	80%	\$ 871	\$ 929
NAUGATUCK VALLEY	\$ 23	80%	85%	\$ 18	\$ 20
DURHAM	\$ 1008	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 107	30%	35%	\$ 32	\$ 37
MERIDEN	\$ 73	40%	45%	\$ 29	\$ 33
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1965	30%	35%	\$ 590	\$ 688
SUBTOTAL	\$ 5708	37%	41%	\$ 2092	\$ 2327

MIDDLEFIELD

CONNECTICUT POST	\$ 6	90%	95%	\$ 5	\$ 6
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 685	30%	35%	\$ 206	\$ 240
WEST FARMS	\$ 1575	75%	80%	\$ 1181	\$ 1260
NAUGATUCK VALLEY	\$ 41	90%	95%	\$ 37	\$ 39
DURHAM	\$ 39	30%	35%	\$ 12	\$ 14
MIDDLEFIELD	\$ 429	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 136	35%	40%	\$ 48	\$ 54
CHESHIRE	\$ 0	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 1249	30%	35%	\$ 375	\$ 437
SUBTOTAL	\$ 4160	45%	49%	\$ 1863	\$ 2050

MERIDEN

CONNECTICUT POST	\$ 19	80%	85%	\$ 15	\$ 16
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$26697	0%	0%	\$ 0	\$ 0
WEST FARMS	\$ 7430	70%	75%	\$ 5201	\$ 5573
NAUGATUCK VALLEY	\$ 356	70%	75%	\$ 249	\$ 267
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$10671	0%	0%	\$ 0	\$ 0
CHESHIRE	\$ 387	25%	30%	\$ 97	\$ 116
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 4463	25%	30%	\$ 1116	\$ 1339
SUBTOTAL	\$ 50023	13%	15%	\$ 6678	\$ 7311

CHESHIRE

CONNECTICUT POST	\$ 30	90%	95%	\$ 27	\$ 29
TRUMBULL	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN SQUARE	\$ 1686	45%	50%	\$ 759	\$ 843
WEST FARMS	\$ 5481	85%	90%	\$ 4659	\$ 4933
NAUGATUCK VALLEY	\$ 1506	35%	40%	\$ 527	\$ 602
DURHAM	\$ 0	0%	0%	\$ 0	\$ 0
MIDDLEFIELD	\$ 0	0%	0%	\$ 0	\$ 0
MERIDEN	\$ 249	45%	50%	\$ 112	\$ 125
CHESHIRE	\$ 6237	0%	0%	\$ 0	\$ 0
MILFORD	\$ 0	0%	0%	\$ 0	\$ 0
OTHER	\$ 3988	35%	40%	\$ 1396	\$ 1595
SUBTOTAL	\$ 19177	39%	42%	\$ 7479	\$ 8127

TRANSFER SALES MATRIX
NORTH HAVEN MALL
1990
(THOUSANDS OF CONSTANT 1977 DOLLARS)

	NEW HAVEN CBD	MIRCL MILE	WHITE ACRES	NORTH HAVEN	NEW WALLING- HAVEN	FORD	HMDEN	NORTH BRNFRD	EAST HAVEN	BETH ANY	WOOD- BRIDGE	ORNGE	WEST HAVEN	DRAN- FORD	GUIL- FORD	MADI- SON	CLINTON	TOTAL
NORTH HAVEN	996	782	31	690	46	92	46	15	46	0	15	15	0	0	0	0	0	2775
NEW HAVEN	1042	445	153	475	445	107	107	0	138	0	0	138	138	61	0	0	0	3250
WALLINGFORD	169	797	15	399	77	184	15	15	31	0	0	0	15	31	0	0	0	1748
HAMDEN	583	705	61	475	138	61	92	0	31	0	15	15	15	0	0	0	0	2192
NORTH BRANFORD	107	153	0	138	15	31	15	15	31	0	0	0	0	46	15	0	0	567
EAST HAVEN	368	107	31	77	169	15	15	0	61	0	0	15	15	61	15	0	0	950
BETHANY	138	31	31	15	15	0	0	0	0	31	0	0	0	0	0	0	0	261
WOODBIDGE	123	15	15	77	77	15	15	0	0	0	77	15	15	0	0	0	0	445
ORANGE	15	0	107	15	15	0	0	0	0	0	0	61	15	0	0	0	0	230
WEST HAVEN	138	15	123	46	77	0	0	0	15	0	0	77	169	15	0	0	0	675
BRANFORD	261	153	15	31	123	0	15	0	61	0	0	0	0	199	0	0	0	858
GUILFORD	92	61	15	46	31	0	0	0	31	0	0	0	0	77	169	15	0	537
MADISON	77	0	0	31	15	15	0	0	15	0	0	0	0	31	107	61	31	383
CLINTON	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	31	61	123
DURHAM	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	15
MIDDLEFIELD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MERIDEN	0	0	15	0	15	107	0	0	0	0	0	0	0	0	0	0	0	138
CHESHIRE	15	0	15	92	15	31	15	0	0	0	0	0	0	0	0	0	0	184
TOTAL	4124	3265	629	2606	1272	675	337	46	460	31	107	337	383	537	322	107	92	15330